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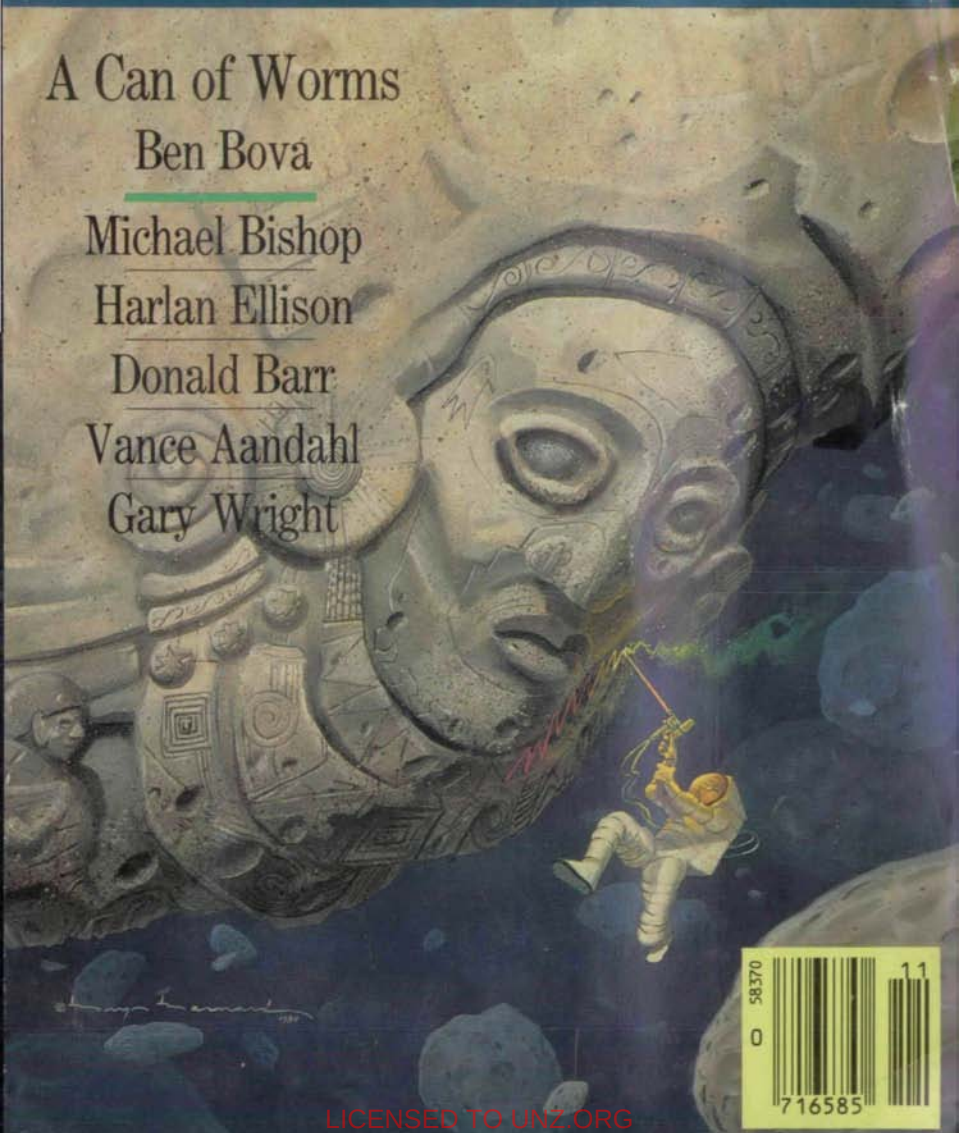

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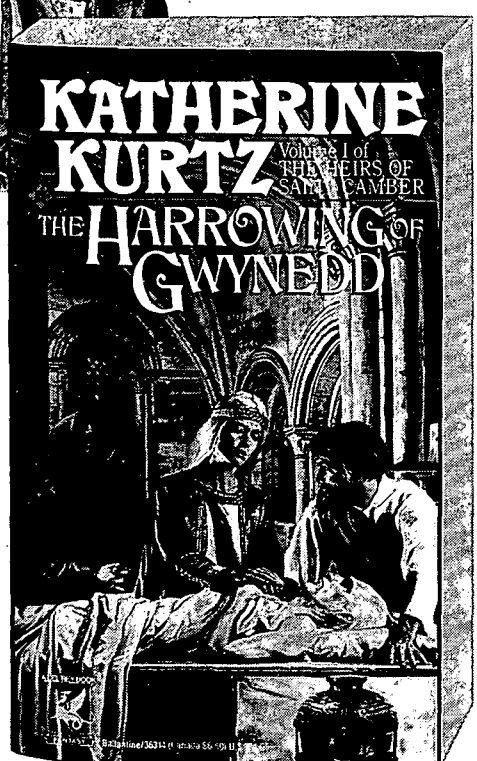

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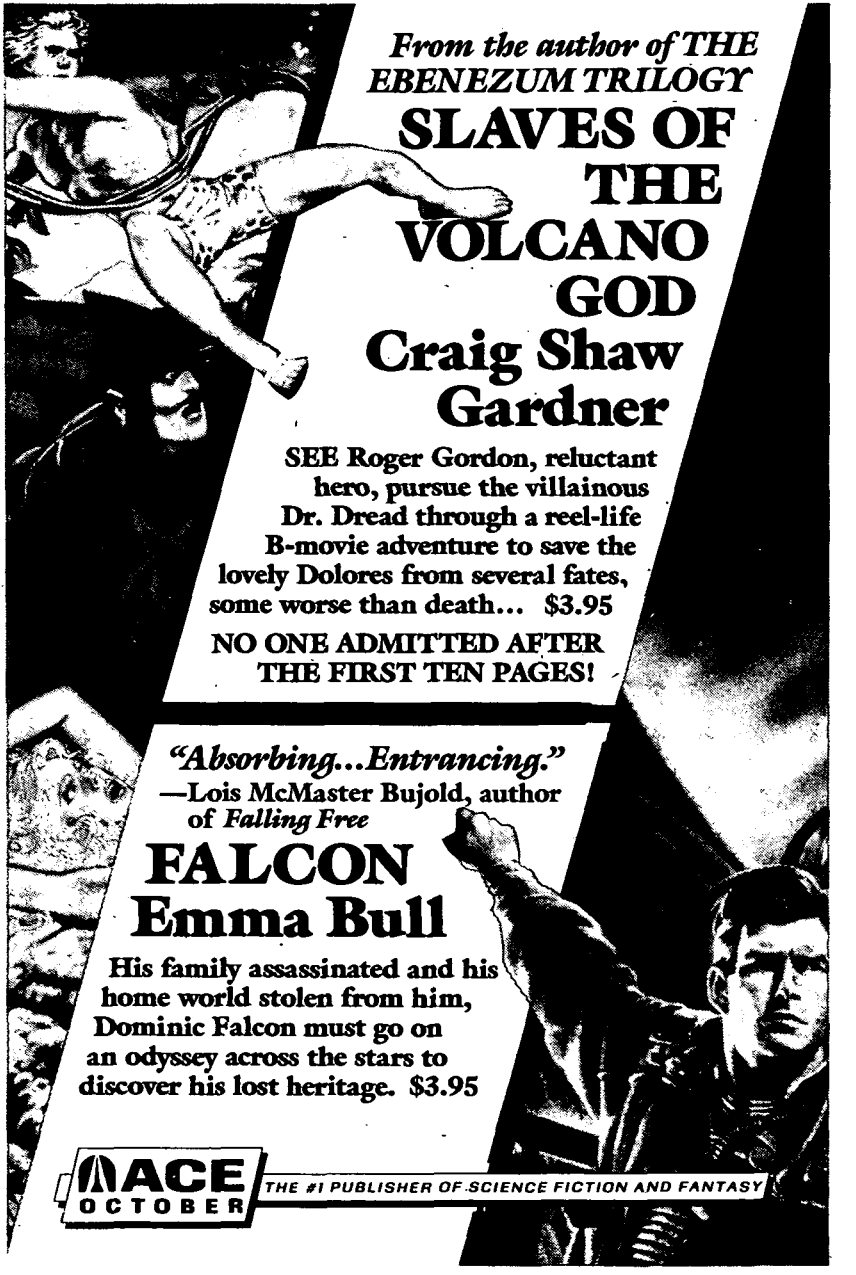
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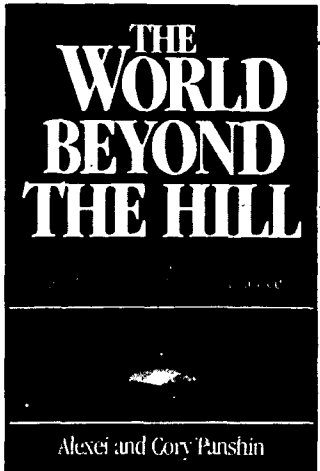

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COVER BY BRYN BARNARD FOR "A CAN OF WORMS"

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Michael Bishop makes a welcome return to F&SF with this story about Christmas Eve, 1957 and a 12-year-old boy named Danny who hadn't believed in Santa Claus in years. The question was, who was that coming down the chimney . . .

Icicle Music

By Michael Bishop

CHIMES ON THE roof, like icicles being struck in sequence by a small silver mallet.

Wind whistled away the icicle shards, hurled them back together somewhere above Danny's bedroom, turned their disconcerting chimes into a hair-raising electronic drone, then boomed so fiercely over cottonwood grove and nearby river that he had to suppose he'd only imagined the eerie icicle music.

Or had he? It was Christmas Eve, 1957 (to be exact, very early Christmas morning), and maybe those unearthly chimes were coming from another Soviet space shot, a beep-beep-beeping *Sputnik* passing over Van Luna, polluting Kansas's atmosphere with Commie radiation and a sanity-sabotaging barrage of high-frequency sound pulses. Who could say?

Danny got up. Careful not to rouse his mother (who ordinarily commuted thirty-plus miles, round-trip, to her job in personnel at McConnell Air Force Base in Wichita), he crept barefoot into the boxy little house's living room. He let the Christmas tree in the corner — light strings un-

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plugged, foil tinsel agleam, fragile glass ornaments minutely rotating — emerge from the gloom.

Had Santa come yet? *Ha!* Danny wasn't misled. He was twelve, had been for more than a month. And even if he hadn't just had his birthday, he hadn't believed in Santa for three or four years. And he hadn't really bought of Jolly Saint Nick's year-end gift-giving since the year Esther Jane Onions let him take her bubble gum in a "kiss exchange" — a double-dare-you bet with Freddie DeVore — in the bushes behind the grain elevator off Depot Street.

Danny'd been, yeah, nine that year. The kiss exchange — Esther Jane's breath smelling just like her last name — had made him feel really funny. He would never do *that* again. It had destroyed his faith in Freddie DeVore's friendship, the inevitability of girls, and, in fact, the reliability of nearly everyone. (Even Ike, with that famous grin of his, for which his folks had voted in '56, was probably a cheat in some ways, fudging golf scores and "forgetting" to report on his taxes all the money he'd won.) Anyway, E.J.'s breath, Freddie's refusal to ante up the agreed-upon Eddie Yost baseball card, Ike's secret sins, and three more disappointing years had forever numbed the kid in him.

Nine. Ten. Eleven.

And — *wham!* — he was illusion-free, a twelve-year-old dreaming of his driver's license, his first legal beer, and the full assumption of Daddy Pitts's role as head of household and chief provider. The rotten skid-out. In fact, Danny hoped his dad was in jail somewhere this Christmas, or in a cardboard box over a steam grate in K.C. or Topeka, or even — sucks to him, anyhow — in a wooden one under a pile of gooey black Kansas dirt. It'd serve the bum right.

Actually, "Santa" — Milly, Danny's mom — had already come. His main present, unwrapped, lay on the green flannel tree skirt under the scrawny pine he'd chopped down on Mr. Arno's place. It glinted there like the sword of a medieval Turk.

It was the shotgun he'd begged for, a gas-operated "automatic" 12-gauge, the kind that absorbed some of its recoil instead of kicking back like a colicky mule. Even in the darkness, Danny could tell that it was beautiful. His mom must have set aside ten — no, *fifteen* — bucks a month for the better part of this past year to buy it for him. He approached the tree, lifted and cradled the gun, and let his fingers roam it from red velvet-edged

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butt plate to the evil-looking shark-fin notch of its front bead, dumbstruck by the deadly power in his arms.

Two small packages, wrapped, lay beside the shotgun, and Danny guessed that they contained shells. Kneeling and hefting one of these boxes, he confirmed his guess. Now he could go dove hunting with Brad Selley. Not *now*, of course — but in the morning, after he and Mom had had their Christmas together.

His immediate problem was that morning, even if Mom got up at six or so, was still a good four hours away. The wall clock in the kitchen (designed to resemble the pilot's wheel on an old-fashioned clipper ship) said so. Figuring himself safe for a time, Danny sat down Buddha style, the shotgun in his lap, and meticulously removed the slick red paper from one of the boxes of shells. Then, holding his breath, he loaded the gun, aimed it at the cockeyed angel atop the tree, faked pulling the trigger, and faked, too, the 12-gauge's rumbling discharge: Ka-SHOOOOOOOM! An imaginary explosion sloshed back and forth in his mouth and throat.

Then, upon lowering the shotgun, Danny heard the wind die. He heard a faint, panicky pawing overhead and the same dreamy icicle music that had called him from sleep. Dad had built their place near Van Luna's riverside dump, on a muddy patch of land inherited from Mom's grandparents. It was two miles from the city limits, a mile from their nearest neighbors, and the boy began to wonder if a crook — or a couple of crooks, a whole *army* of them — had cased their house, decided it was an easy hit, and showed up tonight (Christmas morning) to break in, bag up all their silverware and presents, and then skedaddle, booty-laden, into Arkansas or Oklahoma.

Danny, holding the 12-gauge, got up and backed away to the door of his own bedroom. The popping icicle music continued, as did the agitated scrabbling on the rooftop shingles. Then both the chimes and the pawing ceased, and there was only a hushed curling of wind — and Danny's heartbeat, like acorns falling into a rusted gasoline drum — to suggest that God had ever created sound waves or that the universe had ever before experienced them.

The living room had a fireplace. Dad had built it (lopsidedly, Mom accused, and the catawampus fireplace supported this gripe) of river stones and second-rate mortar. He'd put in no damper. When it rained, huge drops whistled down the flue, hit the inner hearth, and splattered the living room rug with inky soot. Disgusted, Mom had stopped trying to use it. In fact,

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she'd stuffed the throat of the chimney with wadded-up sheets of the *Wichita Beacon* to keep the oily rain from further staining the hearth rug.

Now, to Danny's dismay, the crinkled ball of newspaper fell out of the chimney into the firebox. A second sheet cascaded down, and a third, and a fourth.

Then a pair of booted feet appeared in the firebox, danging down uncertainly, both boots as worn as harness leather. *Whumpf!* The boots crashed through the crumpled newspaper to the hearth. A pair of skinny legs in mud-fouled khaki materialized in the shadows above them. With a grunt and a muttered curse, a man in a heavy red-plaid coat kicked away the papers, ducked out of the firebox, and hobbled over to the tree, carrying what looked like a grungy World War II duffel bag.

Santa Claus? wondered Danny. Father Christmas? Kriss Kringle? Saint Nick? Or just a chimney-shinnying thief?

The man's duffel *looked* empty. It hung down his back like a collapsed parachute. His greasy white hair squeezed out from under the roll of his red woolen sailor's cap to tickle the frayed collar of his In spite of the darkness, jacket. Danny could see the man clearly, as if his unexpected arrival had triggered an explosion of ghostly amber light.

Then, turning, the intruder looked straight at him.

Danny ducked out of sight. A moment later, though, he peered back around and saw that Klepto Kriss Kringle had a pale, stubbly beard and a pair of bleak, ever-moving eyes.

What if he weren't just a thief? What if he were a rapist or a murderer? What if he had his sights on the shotgun now in Danny's arms? Assuming, as seemed likely, that he'd staked out their house and watched Mom bring it home. . . .

Danny (Danny told himself), you've waited too long. You should *do* something. You've got the draw on him, don't you? Why are you being so wishy-washy?

"Hold it, mister!" Danny said, stepping out of the doorway and leveling the twin barrels of his shotgun on the intruder. Santa — no, the lousy burglar — twisted an ornament off the tree and hurled it all the way across the room. It struck the lintel over Danny's head, showering pieces of feathery, mirror plastic. A flashing, quicksilver rain of tiny knives.

Ducking, Danny thumbed the safety off and shot. The blast spat flames, a burst of orange and blue that knocked Danny backward into his bedroom.

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Klepto Kriss howled.

The Christmas tree toppled, like a bombed pagoda bringing down all the bamboo chimes, hammered-tin animals, and folded-up paper fish hanging from its dozens of eaves. The noise was *loud.* The entire house shook. Had there been an earthquake?

Golly, Danny thought, struggling to his feet. My shotgun's a gas-powered job. It's not supposed to kick.

"*Danny!*" his mother shouted from her own bedroom. "*Danny, hon, are you all right?*" She sounded panicked, downright rattled. For a moment, Danny regretted squeezing off a pellet pattern in reply to a desperately flung Christmas tree ornament. But all he'd done was issue a command —a reasonable command, given the circumstances — and Klepto had tried to take his head off. If the 12-gauge had been in the other guy's hands, Danny knew, *he'd* be dead now. Gut-shot by a stinking burglar on Jesus's birthday.

He met his mom outside their bedroom doors, which were across the hall from each other. At first, Klepto seemed not to be there any longer, as if he'd simply vanished, but then Mom saw a rotting boot dangling down from the throat of the chimney. "*What's that?*" She grabbed Danny's shotgun, rushed to the tree, kicked its fallen branches aside, found a box of shells, expertly loaded the shotgun, and ran to the fireplace.

Danny was already there, reaching repeatedly for the toe of the visible boot, as if it were the persnickety beak of a cottonmouth. Each time he grabbed for it, it struck back. So Danny reached and pulled away, reached and pulled away.

Who wanted to get booted in the kisser? And why (now that he thought of it) had Mom taken his shotgun? He had more right to it than she did. After all, blood dripping into the wadded-up pages of the *Beacon* proved that he'd hit his target.

Then the boot withdrew, a storm of soot whirled from the smoke chamber above the missing damper, and both he and Mom were fitfully coughing, waving their hands and colliding with each other in their attempts to back away.

When the soot storm subsided, Mom knelt and pointed the barrels of Danny's shotgun up the angled flue.

"Come down here, you snake! Who do you think you are, stealing our Christmas?"

The burglar's soot dislodging climb went on.

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Unless he was imagining things, there was a *deer* on their roof, a buck with twelve points.

Mom, fiery-eyed, shouted, "Come down or I'll shoot!"

"Don't do it," Danny warned her. "You'll hit him in the butt, maybe, but most of the pellets'll come back on us."

That was good enough for Mom. Flicking on a light as she ran, she headed through the kitchen to the back door. Danny followed, still aching to get the shotgun back, but no longer conscious of the biting cold. Mom hit the porch light, ran down the steps into the yard, gimped barefoot over the brown grass to a spot from which she and Danny could see the black jut of the chimney, and reached out a hand to halt Danny beside her.

Danny gaped.

No moon sailed the indigo velvet of the Sedgwick County sky, but every star visible from the Northern Hemisphere had winked into being up there. He was dazzled. It was hard to make out if the smear on the roof — the bundled silhouette of the man he'd shot — was a living thing or merely a phantom of starlight, wind, and jittery shadows. Danny saw this figure hoist itself out of their chimney, stumble over a lofty plain of shingles, and fall atop a four-legged shape with a white flag for a tail and two black branches of horn for headgear.

Unless he was imagining things, there was a *deer* on their roof, a buck with twelve to fifteen points. The guy who'd tried to steal their Christmas was mounting the jumpy creature. He encouraged it — *"Up, Blitzen, up!"* — to fly him to safety over both the riverside dump and the rooftops of their sleeping town.

"Stop!" Mom shouted. "Stop or I'll shoot!" She sounded just like a sheriff on a TV cowboy show.

"No, Milly!" the man on the roof pleaded. "Don't!"

"Clifton?" Mom murmured. Then, louder: *"Clifton!"*

The compact little buck (a courser, Danny thought, like in "The Night Before Christmas," which Mrs. French had read them on the day before their holidays) soared up from the house. It lifted like a dream creature, pawing the night air and defining both itself and its desperate, neck-clutching rider against a blowing purple scrim of stars. All Danny could do was marvel. There should have been seven other reindeer (if the words

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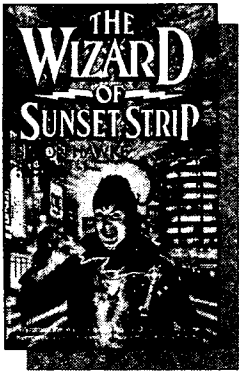

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A WORD FROM Brian Thomsen

I've just finished reading a wonderful new book by Simon Hawke called The Wizard of Rue Morgue. I know this month's book is THE WIZARD OF SUNSET STRIP (and it is undeniably a winner), but I read that one months ago.

You see, as an editor, I always have to read one year ahead. What I'm reading in manuscript now will appear in book form next year. In a sense, all of publishing is science fictional—because we are always working in the future. Our 1989 is your 1990.

However, working so far ahead definitely has its advantages: I always have a sneak peek at Simon Hawke's next magical adventure.

When you see me around, ask me for a glimpse into Questar's future.

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of that silly poem counted for anything), but one was about all Danny could handle.

The deer — the courser — drew an invisible circle over their backyard. Mom and he looked up to see its glinting hooves and white belly. Then the thief sprawled across the deer took a shiny ball from the pocket of his coat and nearly unseated himself sidearming it with all his wounded strength at Mom and him.

"Here's something for you, Milly!" And the stolen ornament — a second one, Danny realized — shattered on Mom's forehead.

"Ouch!"

"Merry Christmas to both you and the brat, bitch! And to all a good ni—"

Mom brushed fragments from her hair, raised the shotgun, took aim at the departing courser, and fired. Rider and mount received the ripping impact of the pellets. A cry from the man. A brief, anguished bleating from the reindeer.

The man fell headlong into the yard. The animal veered toward the dump, legs flailing, but crashed onto the barbed-wire fence Mom had put up to keep rabbits and stray dogs out of their vegetable garden. Its body crumpled the rusty strands of the fence, slicing itself open on the barbs.

Meanwhile, Mom fought painfully up from the frozen earth. (The 12-gauge's recoil had thrown her down.) She thrust the weapon into Danny's hands and ran to the shotgunned intruder. Danny ran to see whatever he could see. The man — the would-be reindeer pilot — was dead, his neck broken and his head tilted away from his coat as if it wanted nothing to do with the hobo corpse to which it still so obviously belonged.

"Clifton," Mom said. "You stupid fool."

At his mother's direction, Danny hauled the deer off the fence, gutted it, and spent the remainder of that unending Christmas dawn rendering the deer on the back porch. They could use the venison, Mom said, and if 1958 wasn't any better than 1957 had been, they'd need a *lot* of it.

Meanwhile, Mom dragged the dead man into the dump; planted him in the cottony guts of a hide-a-bed sofa; wrestled the sofa into a mountain of ancient tires, mushy cardboard boxes, splintered orange crates, and broken tool handles; doused the heap with lighter fluid from her Ronco and a gallon of gasoline siphoned from her pink-and-charcoal Rambler station wagon; and threw a burning Winston into all that jumbled trash to light it.

The pyre burned all night, a surrealistic flickering that Danny could

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see through the screened-in porch on which he was processing the carcass of the flying deer. Later Mom helped him wrap all the different cuts of meat in smooth butcher paper — steaks, roasts, spare ribs, reindeer burgers. Then they washed their hands, limped into the living room, and sat down cross-legged next to the toppled tree to hunt for their presents.

"Was that Dad?" Danny said, avoiding Mom's eyes.

"Yeah."

"It didn't look like him."

"He'd changed a lot."

"Why?"

"I don't know. You'd have to ask him. Which, I guess, isn't possible anymore."

"He called that deer Blitzen. It flew."

"Yeah, well, Papa didn't always tell the truth." Mom dug the boy's only gift to her out from under the waterfall of tinsel. "Ah, this is great. How did you know I wanted a handmade ashtray? The way the colors swirl together — pretty."

"Thanks," said Danny, rubbing his shoulder.

"I'll exchange the gun for one with less kick. You've got my word on it. Please don't let it ruin your Christmas."

Mom leaned over and kissed Danny on the nose.

Then she handed him his other presents: a complete set of the plays of William Shakespeare, and a book of poetry by somebody Mom called William Butler Yeats. Danny didn't think he'd get to them very soon.

I AM — I mean, I *was* — the boy in that story," Danny Pitts told Philip, the worried young man sitting next to his bed in a hospital room in Denver. The blinds on the only window had been hoisted; the icicles on the exterior cornice hung down like the barrels of a glassblower's panpipe.

"You don't mean me to take it as true, do you?" said Philip.

Once upon a time, Daniel had known Philip's surname. Tonight — Christmas Eve, 1987 — he couldn't recall it. His memory did better with events of a decade, two decades, even thirty-plus years ago. Ancient history.

"Why not?" There were tubes in Daniel's nose. The plastic bag of an IV drip hung over him like a disembodied lung.

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"Your mother killed an intruder, then burned his corpse in the Van Luna dump?"

"Yes."

"O.K., Daniel, if you say so. What about 'Blitzen'?"

"See Moore, Clement Clarke. *I* didn't name the creature."

"The creature's name's a red herring." Philip grimaced. "What about its reality?"

"Specious, I guess. At least as a courser. Mom probably shot my dad as he was flying into the cottonwoods. She bagged the poor deer purely by accident."

"There *was* a deer?"

"I rendered it. I used a hacksaw, a hammer, a dozen different knives. We had venison for months."

"Not a talent we'd've ever attributed to you, Daniel." Philip meant the actors and aspiring playwrights in the theater projects that Daniel raised money for and directed.

"Meat processing?" Daniel said.

Philip gave him a faint smile. "Your mother wasn't prosecuted for the slaying?"

"It was self-defense. Or property defense, call it. Besides, no one ever found out."

"Your dad's bones are still out there in the dump?"

"I guess. But even if his bones are still there, his surviving aura isn't. Not always, anyway."

Philip wanted an explanation. Or *pretended* to want one. He was trying to be kind. Daniel was grateful. At this crucial pass, he thought it important to narrate the fallout of what had happened on that long-ago Christmas morning.

"My father — his ghost, anyway — appeared to me ten years later. To the day, Christmas 1967."

"In Van Luna?"

"No. I left there after graduating high school. I vowed never to go back, Philip. A vow I've kept."

"So where were you?"

"Cross-country skiing over a meadow of snow- and ice-laden trees in the northwestern corner of Yellowstone Park. A scene out of *The Empire Strikes Back*, Philip. Unearthly. Alien. Some of the trees had gusted to-

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gether, and then frozen, in architectures of special-effect weirdness. The sky looked nickel-plated, but with a light behind it like thousands of smeared-out coals.

"And your dad — the ghost?"

"Hold on, O.K.?" Daniel opened his eyes as fully as he could, given all the plastic tubing. "I had a hemispherical tent. On Christmas Eve, I pitched it near a fountain of spruces. I snuggled deep into my sleeping bag. I listened to the crazy-lady arias of the wind. A super feeling. Peaceful. Exhilarating."

"Yeah. Alone on Christmas. Thirty-five below."

Toward morning, before dawn, icicle music woke me. (If you've never heard it, I can't explain it.) A guy in a red-plaid coat was quivering like geyser steam outside my tent."

"Klepto Kriss?"

"A.k.a. Clifton Pitts. He — it — sort of modulated in and out of existence with the moaning of the wind. Then he retreated, backing away toward the mountains. I had to throw on my coat and boots and go after him."

"Just what I do when I see a ghost: I chase it."

Daniel, taking his time now, breathing as if invisible crystals of ice had interthreaded the air, told Philip (who, he remembered, almost always ran lights for him) that his pursuit of his father's aura had been successful: he had caught up with it.

The ghost had questioned him, wondering why Daniel was alone on Christmas Day, what he'd done with his life, and how, at his young age, he'd escaped taking up an M-16 in the war against the Reds in Southeast Asia. A Pitts — a strapping kid like Danny — should have volunteered.

"Did you tell him how you'd 'escaped'?" Philip asked.

"I told him. And he — it — retreated, fading away into the wind so that I wasn't able to follow it any longer. A bit later, after eating, I began to think I'd hallucinated the wraith's visit. The cold, the high, thin air. It wasn't unlikely, the possibility my mind had played tricks."

"Sounds good to me. Better than a visitation."

"Except —"

"Yeah?"

"Right after thinking I'd hallucinated my dad's visit, I looked around and saw my sleeping bag was gone. My father — his ghost — had taken it."

"An animal dragged it off, Daniel. Some other outdoorsy dude stole

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it while you were chasing your mirage."

"No. There'd've been signs. Tracks. Footprints. Something. And I hadn't been gone that long."

"What would a ghost want with your sleeping bag?"

"To kill me, Philip. As soon as I recollected that it had come on an anniversary — the tenth anniversary of Clifton Pitts's death — I knew why it had come. An eye for an eye, a tooth for a tooth. On Jesus's birthday."

"A sleeping bag?"

"Not just that. As soon as I'd realized what was happening, my tent blew away. It flipped back, beat against the trees, whirled off into the clouds. I was miles from the nearest town. Without my tent or sleeping bag, I was screwed."

"But you got out O.K."

"I followed some elk tracks to a hay bale left out for them by a tender-hearted rancher. Pure luck."

"But you did get out."

"No thanks to Papa Pitts."

"Who's haunted you every Christmas?"

"No. Only on ten-year anniversaries of that reindeer shoot in Van Luna."

Philip cocked his head. "What happened last time?"

"In '77 he materialized in an intensive care unit in Wichita. On which occasion he stole my mother."

"You saw it?"

"It began with icicle music — this time, though, from a hospital cart turning over in a hall. Test tubes shattering." Daniel shut his eyes. "Festively."

"You'd returned to Kansas to be at your mom's bedside?"

"Yes. Dad showed, too. It annoyed him, how well I was doing. Healthy-hedonistic, looking, contented. Mom's lung cancer was a nice counter-balance for him — proof that the woman who'd killed him wasn't immortal. And that her son — *his* son as well — might also be vulnerable. In fact, after taking Mom's soul, he assured me that my heyday was over. *Our* heyday."

Daniel remembered that he had received this news while staring perplexedly at his mother's waxen face. Then the ghost [an unseen mirage to all the medical folk traipsing in and out] had begun to fade, Milly's soul —

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the ghost had kissed her — fading with it. How did it feel to be swallowed by a mirage?

"He told you that?" Philip said. "'Our heyday is over'?"

Daniel blinked a yes.

"How do you suppose he knew?"

"Who can say? Maybe he guessed. Or maybe it was just redneck spleen. A cartoon of 'Rudolph the Red-Nosed Reindeer' on a TV in a seventh-floor waiting room rubbed him wrong; he wasn't happy about the way the war'd turned out; he didn't like the peanut farmer in Washington. Grievances, grievances."

Philip got up, walked around the sick man's bed to the window. He seemed agitated. "This is another ten-year anniversary. To the day, Daniel. He's due again."

"Right. Maybe you'd better split, Philip."

"I'll drop in tomorrow. With Mario and Trent."

"Gary," Daniel said. "I want Gary to drop in."

"Gary was a sweet man, Daniel. But he's gone. We can't recall him to us. You know that."

"I know that."

"Hang on, O.K.? Just hang on." Philip leaned down, touched his lips to Daniel's brow, and murmured, "Good-bye." Then, finally, finally, he exited.

The radio at the nurses' station down the hall was broadcasting carols. An intern and a candy striper were dancing together just outside Daniel's room. Someone at the other end of the floor blew a raspberry on a noisemaker. The intern peeked in, sporting a cap with plastic reindeer antlers. Daniel waved feebly to let him know his getup was amusing. Satisfied, the intern backed out.

Fa-la-la-la-*la*, la-la-la-*la*.

Outside Daniel's window, faint icicle music. The glassblower's panpipe hanging from the cornice had begun to melt, releasing long-pent melodies.

"Come on," Daniel murmured. "Come on."

He couldn't wait. He wanted his father's bitter ghost to get a move on. If it materialized in the room and stole his soul, that would be a welcome violation: a theft and a benediction, the first Christmas present his daddy had given him in over thirty years.

Come quickly, Father. Come.

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BOOKS

ALGIS BUDRYS

Zenith, David S. Garnett, Ed., Sphere, £ 3.50

The Abyss, Orson Scott Card, Pocket, $4.50

. . . but, first some words about the Mexicon program book, and, later, Sydney Jordan and *Jeff Hawke*, and THEN . . .

WHAT IS he up to *now*!! Well, actually, all I did was go to an SF convention called Mexicon, but this took several hours of travel, and on the round trip I read a book by Orson Scott Card, whom you will remember from the Table of Contents.

Then, at Mexicon, I met a bunch of British SF writers and fans (plus one or two other kinds of United Kingdom resident), and also a couple of familiar faces — bodies attached, of course — from U.S.A. precincts. One of the Brits was David S. Garnett, who was just unveiling his brand-new anthology of new fiction by U.K. authors.

The heavy U.K. delegation at Mexicon is explained by the fact that it took place in Nottingham, and in a hotel right down the slope from where George Gordon, Lord Byron, used to live, doubtless cursing his bad foot on those occasions when he had to negotiate that gradient on his way to the store where they have a fantastic display of truly superb HO and N-gauge train sets and kits, plus nifty models of airplanes like the Luftwaffe's Arado multiengine jet bomber. And fighters with counter-rotating propellers (but you're too young to remember that eyeblink in aviation technology). Didn't buy any; sparse luggage space. I am thinking of going back with a van.

The Albany Hotel (weirdly laid out, but comfortable, well staffed, and astonishingly low-priced if you've ever been to London), was also not much farther from where Nottingham Castle used to be (I have photos), and from what claims to be the oldest publick house in England (called the Trip 'of Jerusalem). Keith Roberts, who accompanied me

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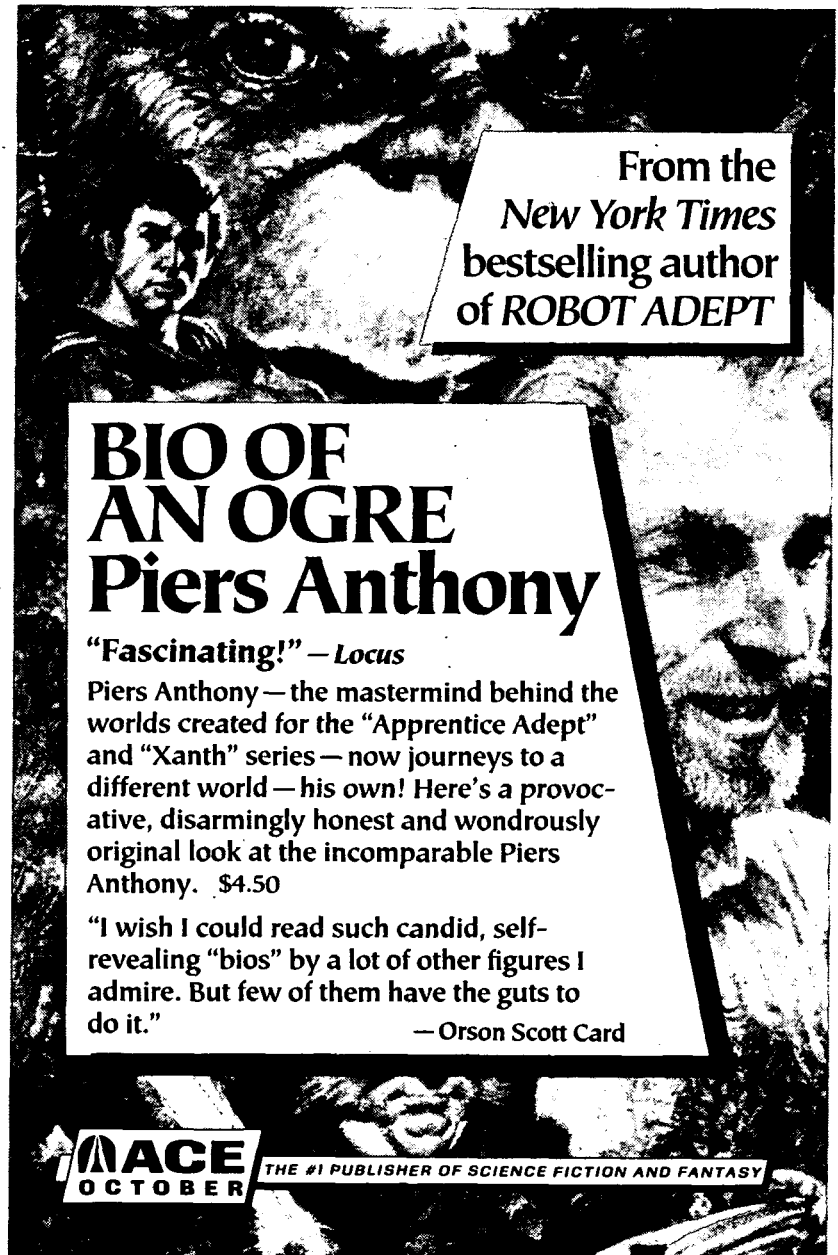
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there, whispers that there are several other establishments making the same claim. They're all no younger than than twelfth-century if they do that, but the brickwork on the Trip is rather Georgian, although the room cut into the sandstone of the "living rock" (Why do they always call it that?) behind the more recent structure looks as though it might very well have been there since even before the happy discovery of fermentation. While I saw no wall-drawings of musk oxen being speared by intrepid stick-figures, my eyes may not have been focused all that well at the time.

Be that as it may, the Mexicon program put together by Paul Kincaid was sapiently based on a variation of the old U.S. *Double Bill Symposium*, a fannish publication put together by Bill Bowers and Bill Mallardi, in which they surveyed a number of U.S. SF writers of the day (early 1970s, as I recall) and issued excerpts from the responses in a staple-bound chapbook. I chanced to review it, and, flatteringly enough, Paul had seen the reference to it in a collection of my reviews. So he did the same for U.K. writers and this turned out to be the Mexicon program book, with my picture printed large.*

*I am *large*.

I don't know where you are going to get a copy. Perhaps from Mexicon co-chairs Greg and Linda Pickersgill. They were kind to me and they might be kind to you. Or from Paul Kincaid, ditto. Certainly if you are a scholar of the field, you should get a copy. Where? How? Well, you're a scholar — run it down. In all truth, I neglected to find out how and if it can be done, but if you have a contact in the U.K., and if there are any extra copies, it shouldn't be that big a trick.

In the event, the "program book" is at least as fascinating and useful as its prototype was. In addition to the answers to an array of Kincaid's leading questions — which I'll be listing for you in a moment — it contains photos of a great number of U.K. writers, including a fair sampling of newcomers or at least strangers to the U.S. publishing scene. Some of them are extremely good writers who have done or will be doing very interesting work, and it would be good to make their acquaintance early.

It contains an informative survey article by Roger Robinson on early British SF magazines, accompanied by some cover reproductions and a list (which Robinson says may not be complete, but which includes such eyebrow-raising publication titles as *American Fiction*, *The Fantastic Science Thriller*, and

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Wonders of the Spaceways, as well as *Outlands*, to which as it happens I was a charter subscriber back in the days when I was tending fowl for a living. In the article, Robinson also mentions *Yankee Science Fiction* and *Vargo Statten Science Fiction Magazine*, pehaps a precursor of *Isaac Asimov's*. In fine, he appends a list of reference works containing further data on the topic, and while I'd heard of and even have some of those, some of them are new on my horizon. Michael Ashley's *Fantasy Readers' Guide: Index to Spencer Publications* (Cosmos, 1979) surely isn't on many shelves in the U.S.A.

Kincaid's questions, whose answers each form a chapter — this is a thickish pamphlet set in smallish type — were: Do you consider yourself a writer of science fiction and/or fantasy?, What is it about your work that makes it fit into these categories?, Why have you chosen to write science fiction or fantasy?, Do you consider there is anything distinctly British about your work, and if so what is it?, Do British settings play a major part in your work, and if so, why (or why not)?, What do you consider are the major influences on your work?, Do you detect a different response to your science fiction/fantasy between publishers in Britain and America (or elsewhere)?, Do you detect a different respone to your science fiction/fantasy between the public in Britain and America (or elsewhere)?, What effect should good science fiction have upon the reader?. and What do you consider the most significant weakness in science fiction as a genre?

It's interesting to me that apparently fantasy, as a genre, has neither effects nor weaknesses. What's more interesting is that only a few respondents said something equivalent to "I just write what I think needs writing," or "I'm not oriented to such comparisons," while the clear majority were, indeed, paying a great deal of attention to perceived differences between British and American publishing and SF publics. That's the only way in which this survey differs significantly from the *Double Bill Symposium* in its kinds of responses.

Otherwise, the respondents — as they also proved to be in person — are rather much like their U.S. counterparts. Perhaps more so than they might be prepared to believe. But certainly in 1970 no one in the U.S. was asked similar questions, even though the "New Wave" had taken strong effect on on several key American writers, and even though that effect has been gathering strength over here ever since . . . a fact that some U.K. writers may

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not fully be aware of.

That was what struck me most. There's no question but that many writers the U.K. SF public considers among the best are neglected or unknown in the U.S. There's no question the U.K. SF core public itself is not large enough to support the career of a writer who does not sell to U.S. publishers.* There's no question the U.K. still contains more potential Vargo Statten readers than it does readers of work like Colin Greenland's or Andrew Stephenson's or Elizabeth Sourbut's — let alone the work of the better-established Brian Aldisses and Christopher Priests. But there's some question as to whether what's called "American SF" by a significant number of U.K. writers isn't actually a kind of SF more related to a certain tradition than it is to a particular place on a map.

For the fact is that ever since Kingsley Amis spoke up at Princeton as an envoy from another way of looking at what had been John Campbell's domain, and the *New Worlds* people took it the next step on, and Brian Aldiss made a sensation over here — beginning in F&SF, as a matter of fact — and J.G. Ballard found a public, what might well from a U.S. perspective be called British SF had had a powerful and growing influence on the styles and thinking of younger U.S. writers. Some of the latter are not so young anymore, and have their own apprentices. But these whole schools of U.S.-domiciled writers are apparently not included in the picture of Yank SF as referred-to by many of Kincaid's respondents. Perhaps because what they do is so understandable as to be overlooked.

Bottom line: In a few more years, the actual differences will be even more markedly lessened. We are that close to a Transatlantic SF predominating over the "genre" — which I think can preferably be called "the literature," but what do I know? — and what I hold in my hand, and you, if you care deeply, should hold in yours, is thereby one of the last, most indicative milestones on the road to what lies just over the next rise of ground.

Zenith, David S. Garnett's anthology of original stories, will show you that. Garnett somewhat ingenuously says he would have included good stories by American writers but fortunately didn't have to. Yet there is almost nothing here that in my judgment wouldn't have sold on the U.S. market and been considered

**U.S. publishers always know exactly what their public likes. But in that respect they are not any different from publishers anywhere; they just appear to do it more often and pile it higher.*

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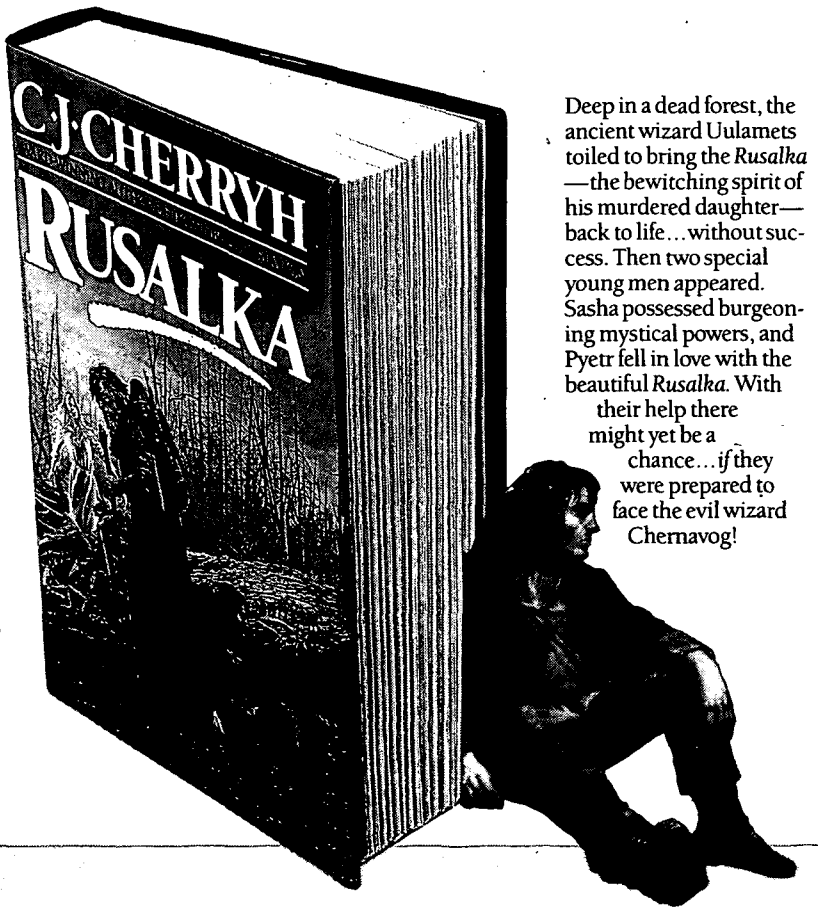

Deep in a dead forest, the ancient wizard Uulamets toiled to bring the *Rusalka*—the bewitching spirit of his murdered daughter—back to life...without success. Then two special young men appeared. Sasha possessed burgeoning mystical powers, and Pyetr fell in love with the beautiful *Rusalka*. With their help there might yet be a chance...*if* they were prepared to face the evil wizard Chernavog!

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at least unexceptionable.

The Greenland and the Stephenson, and the Sourbut — to point out just three — would have been considered exceptionally ingenious variations on classic SF ideas that have been thoroughly explored but clearly not exhausted in American SF. And though their styles are "heightened" — the Greenland and the Stephenson in particular — this is done by skillfully deploying the same kind of narrative drive that creates the kinship between Cordwainer Smith and Harlan Ellison, and the kind of moral outrage that informs the work of many younger U.S. practitioners.

What *Zenith** is, in fact, is a very good anthology of original SF short work by people you may very well never have heard of, Aldiss and Lisa Tuttle excepted. There are several clear Nebula nominees in it, which by American standards is a compliment, and in the Budrys poll the palm goes, narrowly, to Greenland over Stephenson, good as the rest of the field is. Quite a few — those two, certainly — are pieces I wish I had written. It may be indicative that I never wish that about stories of a kind I haven't done myself, here in the American market.

**That's pronounced Ze-nith, not Zee-nith, by the by.*

* * *

While at Mexicon, I also made the acquaintance of an upstanding, swift and with-it gent named Sydney Jordan. The only reason people don't mention Jordan's name in the same breath with Alex Raymond's and Milton Caniff's is because comic strips don't, indeed, cross the water worth a damn. (Unless they're Andy Capp, but that's because Capp plays a running gag whose cultural basis goes back to Aristophanes and well beyond.)

Jordan, working most of the time from scripts by his boyhood chum, Willie Patterson, for years produced the *Jeff Hawke* newspaper strip. Hawke was an RAF pilot in the 1990s who kept running into adventures involving all sorts of galactic races. He lived in a thoroughly populated universe . . . populated, as it happened, by aliens who like as not had a wry sense of humor, or who acted in ways that enabled readers of the strip to break into the occasional crooked grin while also hanging on the edges of their chairs to see what would happen next. Actually started in the middle 1950s — Harry Harrison got in as the writer at one point toward the end — and cut off quite some years ago, now, the strip re-read seems perfectly viable. And the drawing . . . well, I've told you all you need to know to appreciate how skilled

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Jordan was — and is, on new strips he's doing now.

Whatever, I know this because Titan Books have put out two of a promised three collections from the series, and I bought them at Mexicon. These, I think, you can pick up at SF specialty stores in the States. And you should. They will do it to you.

There's some question in my mind whether the glow I get from reading *Flash Gordon* is really there or is boyhood recapitulated. But I had never heard of the *Hawke* strip, let alone gone to it for comfort in the chicken days, and there's no question; it will do it to you.

So I was on these airplanes, and I had this plastic comb-bound advance proof of *The Abyss* that came apart somewhere in the latitude of Iceland, but by then I was so hooked I put it all back together tooth by tooth later, so I could keep it.

The Abyss is James Cameron's title, and Card's is a "novelization" of a Cameron film that has swiftly become notorious. The various articles and newsbreaks on the special difficulties in filming, the hatred some cast members developed for Cameron, the breakup of Cameron's marriage to his co-producer in midfilm, etc., etc., may even be the product of a supersophisticated PR campaign that overlooks the fact you're supposed to sell the sizzle on the steak, not on the chef. What is lost in that sort of campaign is that people don't have to go to a theater to buy what you think you're selling; they can stay home with their copy of *People* magazine and get what you're really selling cheaply. So Card's work may not get the appreciation it deserves, because it's not associated with the actual product.

Because of the unique way it was written, it reflects the actual product more than any other film "novelization" ever has. And at the same time, it's quite a good SF novel.

Movie "novels" are written with reference to a written source . . . . sometimes the scenario, usually the screenplay, more rarely the shooting script. The present-day ace at translating "EXTERIOR; DAY; ANTARCTIC BASE; lone sled-dog runs into shot" to narrative prose is Alan Dean Foster (whose novel of John Carpenter's *The Thing*, while no "Who Goes There?", is a much more accomplished story, and more self-consistent, than the film released to theaters. In fact, I don't see how the shooting script for the film could possibly be matched scene-for-scene with what Foster did.

What Card worked from were videotapes of the daily shots taken as the film progressed, although he did of course have access to some

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scene-by-scene writeup of what Cameron intended to shoot. So Card's characters in his *The Abyss* are not what he has made of the names on paper; they are based on what he could see the actors making of their interpretations of the script in response to Cameron's direction, and to the framing of the shots. That is a quite different thing. It's more like your friend coming back from the movie house and recounting what he saw. Except that in this case, your friend is a trained, practiced prose expert.

The story is an adventure with a message. A hypertechnological underwater oil-drilling facility designed to operate at extreme depth is drafted to conduct a salvage operation on a sunken U.S. nuclear submarine. The crew is supplemented by a detachment of U.S. Navy Seals — depicted as being the toughest and most robotic military special force in the world. It takes a while for crew and military to realize, and then accept, that the deepest trenches of the world's oceans are inhabited by an alien race.

The reader knows, long before they do, that the submarine's disaster was in fact caused by an unintended encounter with an alien craft; that the aliens have conducted civilized affairs since long before mankind shed its pelt; that they are horrified by mankind, and in deep dismay over what has happened. And, just as the humans have great difficulty operating in the crushing depths at which they must work, the aliens have corresponding problems at low pressures. So it becomes very difficult, in several senses of the word, for them to interact in trying to make sense out of what has happened, and in trying to repair a situation in which the Seals, and their commander topside, are prepared to start World War III.

The strength of the book is not in that plot, which is Cameron's — that is, the kind of story a film maker would assume his audience could assimilate. It's in the motivations and past histories that Card has supplied to the characters in order to account for how they came to be the people he saw on the screen. That includes what he has made of the interior conflicts and anguishes of the aliens, who to Cameron were apparently just fleeting effulgences and rushing shapes. So it is not a friend's report on a film he has seen, after all. It is a friend's supplying of the human and alien rationales for what appeared on the screen — a complex, diligent task of filling in the unfilmable; of seeing the child who must have preceded the adult seen on stage.

Interesting. A new sort of prose artform. The literature does *persist* in evolving, does it not?

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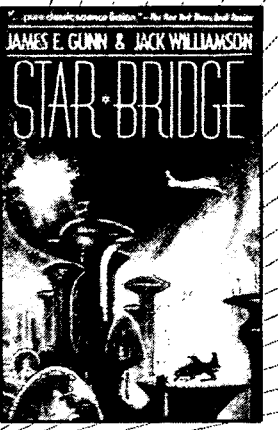

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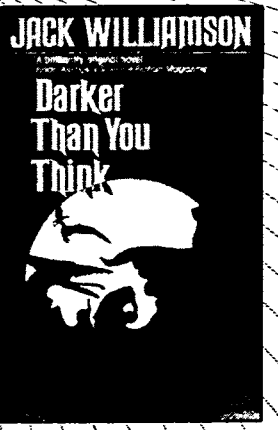

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Donald Barr has been a college English teacher (Columbia), an assistant dean of engineering (Columbia), a headmaster (Dalton in New York City), and he was one of President Reagan's first appointees to the National Council on Educational Research. With all that, he's found time to publish two SF novels; it's a pleasure to have him in F&SF with this superior short story.

The Extra Ancestor

By Donald Barr

LAWRENCE EDGERTON WAS the aftermath of the argument that took place in October 1993 between a Professor Lawrence T. Wagram and a graduate student of his named Claire McCullan.

"What if they catch you?" said Claire, a sulky, well-fleshed girl of twenty-three. "They'll bust your ass right out of biology."

"They're not going to catch me," said Wagram.

What are you going to do, impersonate a sperm bank? What are you going to tell the participants?"

"I happen to know that Fassentine tells *his* participants he's saving their future kids. He does a scan on a married couple and says he's found the genes for Huntington's chorea or sickle-cell or whatever. They give him carte blanche."

"Dr. Fassentine is at the University of Duluth, isn't he? You couldn't work that here. Californians are into genetics — and tort law."

"It's not going to be a problem," said the professor cryptically. "Anyway,

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I have an idea that will change the world, and when it works — don't laugh, you bitch; I've got the data — my ass will be just fine. The Swedish Academy will kiss it and make it better."

"And if you produce a monster?"

"Amniocentesis, vacuum cleaner, and back to the drawing board," said the professor reassuringly.

"This superman you're going to create; I suppose it will run a two-minute mile, fart 'America the Beautiful' in B-flat major, and eat hay."

"Read minds," said Wagram. "Telepathy."

Claire had no audible answer to that.

"Listen," said Wagram, "dogs are telepathic. Everybody who ever had a dog knows that. You sit in a room with a dog, and another dog walks by the house, and your dog growls. People's minds, too. You start thinking about something, and the dog *knows*."

"The physicists say telepathy is impossible. It violates something-or-other."

"Physicists!" sneered Wagram. "Physicists don't have dogs. Anyway, the quantum physicists have all this crud about the collapse of the wave equation, and the Observer, and Schrödinger's Cat. Well, *they* don't know who the Observer is. Maybe it's Schrödinger's Dog."

"And you're going to stick a *dog* gene up some girl? What woman will allow that?"

"You will," said the professor calmly. "Otherwise, I'll tell the dean about your little lapse yesterday in the thermo lab. He *warned* you not to cheat again."

Claire McCullan turned pale.

For several years, experiments had been underway in at least eight laboratories, mostly in France and the U.S., in the use of gene-splicing techniques to improve the human species. Many scientists were tired of using synthetic DNA — the so-called "designer genes" — for small, pious purposes; it was like living off canned goods in the middle of a vast jungle teeming with fowl and game and melons. They wanted to dip into the vast stream of natural genes and make combinations that billions of years of chance had failed to try. They meant to add great abilities to Man, not just cut out a few disabilities. Professor Wagram was one of these small-time Demiurges.

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Considering his optimism, he was a thorough researcher. He quickly acquired the data he said he already had. Striking up an acquaintance with the proprietress of Miss Fouet's Obedience Academy for Pets, he studied selected behaviors in thirty-eight dogs and compared their chromosomes. Even with the crude genomics of that time, he found a gene that associated with the kind of hyperawareness he wanted. A restless beagle named Snuffy supplied the gene, Professor Wagram himself supplied the spermatozoon, Claire McCullan supplied the ovum and the uterus, and Eddy began.

Wagram also supplied Claire with a husband, a dilapidated but wealthy alcoholic named Mischa Edgerton (known to the professor and his disgusted graduate student as "Old Putative"), who was entrapped by the ancient prescientific method and who supplied Eddy with a name.

In the end, that sort of research was stopped by the researchers themselves, for two reasons: one scientific, one moral.

The scientific one was that you had to wait too long for the actual results to show themselves, and time passed quickly on the "tenure track."

The moral one was that results were too unpredictable. They showed up too *different* in later generations. You substituted a nonhuman gene for a human one: you could probably tell what would happen in the first generation, perhaps in the second. But after that, it seemed, certain other genes, genes that had not been tampered with, became unstable. It was as if some underlying logical structure had been shaken apart. Siweč at Columbia, reviewing earlier work on animals with short life cycles, nicknamed these grouped changes "avalanches." Now it belatedly occurred to the researchers just what an avalanche could mean in humans. Releasing into the human phylogeny these "sports" — which were nonevolutionary, because, in a modern society, natural selection is against the law — was dangerous business. Regardless of any hold-harmless agreements signed by the grandparents, the parents — and even the variants themselves, if they lived to legal adulthood — could sue.

The brillant but neurotic Fassentine brooded incessantly over this, and when his beta-blockers failed him, he threw himself out the window of his laboratory on the twenty-sixth floor of the Alan and Miriam J. Lomser Life Sciences Tower at the University of Duluth.

The attempts to breed superathletes were dropped, and the cheetahs

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and gorillas donated to zoos. Migratory birds flew unmolested on their rounds once more, their navigational abilities more controversial than ever. For years a rumor ran through scientific congresses that a gifted young French conductor "had some bat in him" — but doubtless that was waggishness or spite.

Like all the rest, Professor Wagram abandoned the field; he later made a considerable name for himself as a commodities broker. His notes were destroyed in a fire of suitably unsuspicious origin. Nothing was left of his research — except "Eddy" Edgerton.

Edgerton was not telepathic. There is no real evidence that Snuffy was telepathic. But Snuffy did have a singularly acute sense of smell, even for a dog. In all probability, many of the marvelous feats of cognition that dogs perform — the sensing of human moods, the awareness of animals in the vicinity, etc. — are due to little tendrils of scent drifting invisibly in the air.

Professor Wagram was a competent scientist technically, and he really had gotten very close to the phenomenon he was looking for. Close, but, as it turned out, no cigar.

When the baby was three months old, Claire and Mischa Edgerton separated. Eight months later they divorced. For two years after that, Mischa made halfhearted efforts — on Saturdays — to act like the father he thought he was. But he was already ailing. A few years more, and he disappeared — into a convalescent home, where boredom slowly erased the little that ethanol had left of his mind.

His son could never retrieve any conscious memories of him. But it is a fact worth noting that a long time later, when an unprepossessing stranger, who smelled faintly of ethanol, approached him and claimed paternity, the young man readily accepted him as his father.

WHILE BABY Edgerton was still crawling happily on his nursery floor, it was noticed that he showed less disposition than other babies to struggle to his feet and toddle. In every other way he seemed developmentally normal — a bright, alert, vigorous child. One must remember — Sigmund Freud had pointed it out, but the insight had passed from general awareness — that the sense

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of smell was largely wasted when animals took to standing erect. In a dog's world, heads and fundamentals are conveniently on a level. In the daily life of Man, this is not so.

It was not that little Edgerton had a positive instinct to remain on all fours. It was that the all-fours world, the world below the edges of skirts, the world near shoes, offered him marvelous rewards, rewards he could never put into words, even when he was grown up and quite verbal.

This one little developmental "lag" of Edgerton's was remedied by sheer chance. Claire Edgerton, a divorcée with a very good settlement, took up cooking; and she specialized in rich desserts. The sweet, vivid smells of the cocoa powder and the vanilla extract; the subtle promise of the flour; the sharp, sunny torpor of the rum; and so forth — all of this up on the kitchen counter brought little Edgerton to his feet.

School was more interesting to young Edgerton than to most children. He had not yet been civilized to the point at which we blank out our perceptions of the cloacal, the decaying, and the feral. But already such scents were acquiring a forbidden-fruit excitement.

The reluctance of other little boys to wash made their companionship intensely interesting; he did not know why. And he could tell, without turning his head, when a teacher was coming up behind him; he knew, without thinking about it, which teacher it was — but he did not know how he knew. School assemblies were almost overwhelming to him, especially as his sexuality grew clearer in sixth and seventh grade, and he took to sitting as near the girls as his friends' satire permitted.

There were misunderstandings, of course. None of the other boys really understood what was attracting Edgerton to girls, except in the most abstract way. Television was training them all in a kind of disembodied salaciousness — which it was still easy for them to mock. The more immature of the boys simply thought this strange kid who hung around girls was a faggot.

The girls' pubescent pheromones were less interesting to Edgerton than the rich auras of his female teachers. He sat in the front row in any classroom where the teacher was a woman.

His eighth-grade Spanish teacher, *Señora* Goldwasser, was a handsome woman with a challenge in her eyes that made her the unuttered toast of the second-floor Teachers' Room, and a Caribbean way of rasping her R's

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that induced castration anxiety in many an adolescent male; but she had a tendency to heavy, meaningless botanical perfumes that left Edgerton cold.

In contrast, his Algebra I teacher was a no-nonsense young woman, a soap-and-water young woman; and as it happened that Edgerton's algebra section met at the end of the school day, she was intensely alluring. In fact, Miss Kostmyer's exposition of simultaneous linear equations was accompanied by other, nonverbal communications that sometimes left Edgerton reluctant to stand up. Once, when she asked him to do a problem at the board (for she was a good teacher), all he could think of was to whine, "I'm sorry, Miss K., I got a hurt foot." He had a good deal of foot trouble that year.

But there were benefits, too, quite practical ones. Not only could Edgerton (again, more or less unconsciously) keep track of the four-week mood cycles of his female teachers and thus stay out of trouble when his less sensitive classmates blundered into scrapes, but he could sense the quick, brutal mood swings — the welling rages, the mean triumphs — of his male teachers as well.

"Coach" Lowry, the boys' physical-education teacher, was a particular object of Edgerton's study. He was a difficult topic. He was surrounded by the different but equally acrid effluvia of the pupils. He moved about rapidly. His personal field was continually interpenetrated by other fields. Moreover, Edgerton was never at his best in phys ed, arriving out on the gym floor already bewildered from the locker room. And when his group was to be subjected to a unit in wrestling, Edgerton cut phys ed, and, if necessary, school. There were limits.

When Eddy was fifteen, old Mischa died, and the boy's knowledge of his family underwent substantial revision. His mother rather brutally —she was at the age when women finally see through their husbands, or, lacking husbands, through the shams of society at large — informed him that his "daddy" had not abandoned the family after all, but had in fact never been a member of it. She named and described Eddy's real father, and the father's parents and grandparents. And she told Eddy they had all died before he was born — which (she told herself) was better than 85.7 percent true; and anyway, the professor was as good as dead, wasn't he? since he was living "another life" in New York.

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She did *not* tell Eddy about his own first few minutes of life in a petri dish, nor about Snuffy. There would have been no point in doing so. She had never seen any signs that the boy might be telepathic.

In fact, he had never given her a clue that he was anything but an ordinary, unnoticing boy. Claire Edgerton emitted the ordinary molecules, and her son's doggy nose received them; but the rest of him was human, and a profound human instinct repressed all awareness of them. And of her effluvia, or of the information in them, or of his repression of the information, or of his instinct to repress it, she, too, was unaware. To her, Freud was just a discredited male scientist — like Professor Wagram.

Eddy reacted positively (as the phrase then went) to his mother's news. He was relieved that his father had not abandoned him. She, in turn, was relieved that he seemed relieved — because it would have been awkward at that moment if he had turned out to be telepathic after all.

The dormitories at Berkeley presented Edgerton with absorbing problems. He was astonished at how little his fellow students knew about one another, how successfully they bamboozled one another with false personalities.

He had only to amble down the dorm corridor to learn through the doors — whether ajar or locked; the only difference was the time it took — what his fellow students were up to: who was smoking cannabis, and who was smoking tobacco, who drank wine and who was drinking too much coffee, who had spent the night in rutting and who in panicky cramming, who was preparing for an important date and who was letting himself fester and ferment. In one week, outside one room, the happy scents of grooming — the hair stickum, the antiperspirants, the portable steam iron, the shoe polish — could give way to the smells of personal neglect.

Sometimes there were smells of religious devotion — the residues of incense from Mass, or the afternoon fasting-breath on Yom Kippur or during Ramadan. And sometimes there were smells of religious apostasy — the hamburger surreptitiously brought in and consumed by the erstwhile Hindu, the BLT by the Orthodox Jew.

But Edgerton was growing up. He did not want these invisible intimacies crowding in on him. "I don't like having my nose rubbed in other people's lives," was the way he expressed it to himself; and yet he gave no

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thought, even then, to the literal meaning of the phrase he had chosen. Of all the sensory inputs, a scent speaks most directly to the subconscious. It is more poignant than remembered music, because it is less abstract. So, in the end, Edgerton got his own apartment, where his own smells could predominate — or, as he put it into words, where he "had privacy."

On the whole, Edgerton's idiosyncrasy served him well. He detested the odors of cannabis, wine, hard liquor. It made him ill even to think about snorting drugs. He graduated with honors in mathematics.

At one time he had thought about going into medicine, but as he lost his infantile ability to smell life steadily and smell it whole — as he unwittingly became squeamish — medical school had become quite impossible for him. Again, he did not recognize why: he could not face the dissecting room. A pity: not many years later he was to realize that he could have been a great diagnostician, stalking through hospital corridors pronouncing, "Typhus! Diverticulitis! Gallbladder! Hepatitis!" — as he had once walked through the dorm thinking, "Burger King! Pot! Fear! Fornication!"

At this stage he had only begun to realize, still vaguely, that his nostrils were bringing him information no one else possessed. The reason for this he found out at the worst possible moment.

Two years after graduation, in lilac time, Edgerton fell in love.

He had moved to Connecticut and taken a job in a computer-service company, and a demure, almost odorless girl named Alice worked as a datapumper two cubicles away.

There was no formal engagement, much less a "relationship"; but a gentle understanding grew up between them. They went on slow, inexpensive, companionable dates and were happy. The time they spent together in lower-middle-class restaurants and movie theaters was limited only by Edgerton's horror of public toilets. Their good-nights were shy; neither would invite the other "up."

Somewhere inside Edgerton, Miss Kostmyer's small, libidinous student was still ramping. He had often felt the undertow even in the presence of girls he thought attractive. With two of these he had actually had "experience." He had felt (in his own muttered phrase) "like an effing marionette." But Edgerton had no foot trouble when he was with this clean girl. He put this down to his respect for her. He and Alice each

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thought about marriage and said nothing.

IT WAS at this point that curiosity got the better of Professor Wagram. (The professorship was long gone, but the sobriquet remained and took on a sort of raffish overtone as Wagram, now a commodities brokers, took chances with other people's money and talked his way out of the consequences.) He had had reverses lately and had become nostalgic. He was in trouble with one of the regulatory agencies. His health was poor. He drank more than was good for him.

He inquired — at a safe distance — after Claire. She was obese and self-preoccupied.

He had a son — he and Snuffy — and was even prepared to be sentimental. What was the boy doing? Was he happy? The ego of the former scientist elbowed its way forward. Suppose the boy was telepathic after all! Suppose that daring scientific gamble had paid off! In a world of regulators, the creative mind is at a terrible disadvantage; but once in a century, someone came along with the skill and pizzazz. . . .

He traced Edgerton.

The first meeting was not quite painful.

"Mr. Edgerton? Thank you for seeing me. My name is Wagram."

It took Edgerton a moment to ask himself what relation of his dead father's this could be . . . or whether his father was really dead. Meanwhile, the visitor advanced but did not hold out his hand. Edgerton therefore thought this faintly seedy old stranger intended to embrace him, and backed away. The man had bromidrosis, so that his feet seemed to accompany him across the room like some musky pet; also, he had been drinking bargain scotch.

Wagram *had* intended to embrace him, and his son's retreat suggested to him that the young man knew who he was and had a negative attitude toward him; but by the same token, it suggested that his son might have read his intention, *might in fact be telepathic.* "Yes," he said, "I am your real father."

"My mother told me about it," mumbled Edgerton.

The fact that he said "my mother" instead of "Mother" or "Mom" interested Wagram. The boy seemed as cool toward his mother as he obviously was toward his father. There were possibilities here. "*All* about it?" asked Wagram.

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To Edgerton, the question sounded obscenely arch. "Certainly not," he snapped. "Good God!"

It was uphill work for a while, but Wagram persevered. He put on a display of gush (and not all of it false) over his newfound son. He took Edgerton to dinner at a decent restaurant (and really did not begrudge the expense). Noticing that his son refused a cocktail, he did without his usual scotch. He asked eagerly about Edgerton's interests (and wanted to hear the answers). He invited the boy up to his motel room for a long talk.

Edgerton hated the thought of sitting in a stuffy room with those terrible feet, and he hated even more the thought of a father-son talk; but he called Alice and told her that his father had blown into town; and he went to the motel room.

What Wagram meant by "a long talk" surprised him. The old wretch held forth briefly on the inheritance of specific intellectual traits ("Like the Bachs, you know"), and then produced a deck of cards, insisting that he wanted to see whether his son had inherited his own remarkable talent for calculating probabilities; and this he could discover by playing a few hands of "Pig in a Poke."

To Edgerton, this sounded like a cardsharp's pitch. It was, he thought bitterly, some lousy father that would make money off his own son at cards. "Oh, all right," he said. "But you'll have to teach me the game."

"It's very simple. Not much memory, just figuring the odds, really. No money involved, of course." Wagram explained the game and prepared to make his mind as easy to read as possible: he put on a pair of spectacles to sharpen his visual images, and played with intense concentration, holding his cards up before his face and glaring at them.

Edgerton misinterpreted this rigmarole. Probably his father was cheating, the cards marked, and the glasses trick glasses of some sort. But why should Wagram bother to cheat in a game where no money was involved? No doubt the invitation to "a small wager" would come in a minute. The son therefore played loosely, and not altogether scrupulously. He knew cardsharps' victims were always allowed to win at first; he won again and again; and the more he won, the happier this mysterious father of his seemed to be. The old man's eyes shone. The game seemed much more guesswork than calculation. As far as Edgerton could tell, his father was playing it honestly. . . . "Listen," said Edgerton, "do me a favor? Hold your cards so they're not reflected in your glasses?"

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The old man sagged.

After this, Wagram played as if he were tired of the game, but started to win more often; and the more he won, the more morose he became. "This is giving me a headache," he whined at last, and put down his cards. "Gawd, it's hot in here." He reached under the table and loosened his shoes. "I'm in poor shape, to tell you the truth."

Edgerton closed his eyes. "You ought to lay off the scotch."

"How did you know what I'd been drinking?" asked Wagram with returning excitement. "It — it was hours ago, and I only had one!"

"Oh? Well, anyone could smell it a mile away. Cheap scotch." Ill temper got the better of Edgerton. "I'll tell you one thing. *Alcoholism* isn't a hereditary trait. *I* hate the stuff."

Wagram stared with dull eyes. He knew now what talent of Snuffy's he had implanted in his son.

Defeat and self-contempt made him ruthless. He *told* Edgerton.

Numb, dry-mouthed, understanding ten thousand experiences he had shrugged off, Edgerton left his father stinking on the bed and rushed along the dark highway for a mile and a half to talk to Alice.

It was the first time he had ever been in her room. They were there together all night and did nothing but talk.

At first she minimized his heaving confession that he was a Recombinant man, only partly human. She tried to reassure him, and he thought her obtuse. Then she started to consider the implications — for herself — and he thought her unsympathetic.

What appalled Alice was the threat to her daintiness. She was a child of her times. She knew that sex was smelly ("involved a lot of secretions" was the way she said it to herself), but years of commercials had trained her to associate lovemaking with dewy freshness, with roses and white wine; that was the difference between sex and lovemaking. She could, she supposed, accept the probable odors of a male, even a part-animal one. It was his perceiving her own pungencies that she could not accept. She had seen dogs sniffing each other; it always made her nervous.

Alice tried to be a considerate person. She could not explain those feelings to Edgerton, especially (she emphasized this to herself) when he was so upset. She expressed other feelings instead: "Oh my God! I just thought. What happens if we — if you have a daughter? Suppose

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she has, you know, two rows" — her hands fluttered delicately — "down the front."

Edgerton tried to explain that entirely different genes were involved. But he had read somewhere about "avalanches." His voice was not confident.

At daybreak he walked home. The lawns smelled marvelous.

The dogs were out, chasing each other, sniffing, playing their urine game like Chinese checkers. . . .

Alice and Edgerton let each other down gently. They had supper together a few times, and once they went to the movies. Their understanding faded.

The sense of smell evolved for food-finding and mate-choosing as well as danger-scenting. It is still, even for humans, the great agency of desire — *if* one is unconscious of it. Now, however, Edgerton could not ignore it. For weeks he could hardly bear to be near any woman. Women who were "on" estrogen, he positively fled.

This reaction puzzled him. It was morbid. This disgust or self-digust, or whatever it was — he did not understand it yet, but he had to overcome it. Being a secret Recombinant was bad enough; he need not be a damn fool also.

He made himself date young women, young women whose personal habits were not excessively genteel. It was an "experiment." Twice he suffered hideous embarrassments — he was trying to be both a scientific observer and an experimental animal. After that the animal had its way, aggressively. The covert fragrance of excitement excited him, and to his astonishment, *knowing* this did not interfere. It was *thinking* about it that interfered.

Poor Alice. That was that. What had attracted him to her? It must be that she *troubled* him less than females had troubled him before. These sneaking molecular invitations, these mindless wantings and takings, this willing suspension of disgust — they were troubling if you did not know what you really were. He knew now.

He had a choice.

He could become human again. He could keep dosing himself with antihistaminics; they would tame that dog snout of his. They might also (he had heard this somewhere) reduce his potency. There were advantages

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to that, too. He had not forgotten Alice's argument, about the danger of his fathering some sort of pathetic oddity.

Or he could go on using his "gift." There were good practical uses for it. Sniffing out drugs and explosives, for instance: "Yes," he said sardonically, "I could become a police dog." Well, he *could* become a school psychologist. . . .

"Gift' was a good word for it, actually. Alice sometimes used to give him gifts — ties, mainly — that were just not appropriate for him; for some other man, fine; for him, too pastel, or too sweet, whatever. A dog's nose was fine for a species with seasonal urges; obviously it was, or it would not have evolved. Humans are in rut all year round: was a dog's nose an appropriate gift for a man? Damn it, what *business* had Wagram playing God?

But after all, as he said to himself, he need not commit himself right away. He would experiment a little more and *then* choose.

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Jennifer Swift received an M.A. in creative writing from the University of Washington in 1981 and since then has published stories in Asimov's *and* Amazing. *She is currently living in Oxford, England and is working on her first novel.*

DIVERGENCE

By Jennifer Swift

THE GOLDEN LETTERS OF the glass door read: "Foundation for the Scientific Study of Creation." The slight young woman who pushed the door open moved stiffly, as if forcing her body to enter the building. She nodded hello to the receptionist, busy at her typewriter. On the receptionist's desk was a stack of books titled *How to Save Your Children from Evolutionary "Science"* by Leroy Meeks. "Hi, Jewel," the receptionist said. "Your dad's upstairs in the new research room. Should I call him?"

Jewel shook her head. "I'd rather surprise him, Becky." She rubbed sweaty hands against her jeans.

"Go ahead, then. Oh, congratulations on your discovery!"

"Um, thanks." Jewel went down the corridor toward the stairs. Ersatz gospel music played softly as she passed doors labeled "Financial Administration," "Educational Operations," and "Legal Outreach," hoping none of them would open so that she would not have to bear more congratulations.

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There were new double doors at the end of the corridor on the second floor. As she drew nearer, she read the sign: "Flood Research Room; Dr. Leroy Meeks, Director." She shook her head, knowing Josh's insistence on using the purely honorary doctorate embarrassed her father. The doors had round, portholelike windows of deep blue glass, concealing the room's interior. Jewel paused before them, bending her head, telling herself she had to let him know.

The room was dominated by a huge glass tank, waist-high and at least six feet square. It contained an elaborate diorama: hills of rock and sand dotted with trees of colored moss, plastic animals grazing near flat-roofed clay houses. Jewel suddenly remembered the miniature electric lights and working plumbing of the dollhouse her father had made for her eighth birthday. And there her father was, his back to her as he placed a round-hulled model boat in the tank. He was hard of hearing, so Jewel rapped her knuckles on the open door.

He spun around. "Jewel, honey!" He moved toward her, short legs almost skipping. "Has that adviser of yours finally admitted your discovery is real?"

Jewel flushed and shook her head. She brushed past her father, reached into the tank, and picked up a toy lion. Its torso was wrapped with gold velveteen, and she was surprised by its heaviness.

Her father gently took the lion from her hand and carefully repositioned it in the tank. "The fabric is to simulate the surface friction of fur, and I've put lead pellets inside the animals so their relative weights would be appropriate."

The little ark was beautifully crafted, its hull the size and shape of a cantaloupe half. Jewel frowned at it. "Daddy, what's the point of this setup?"

"It shows how all the geological strata, including the fossilized animals, were laid down by the conditions of the Great Flood. For instance, it'll demonstrate that the simpler animals ended up in lower positions because they were more streamlined, thus knocking out a cornerstone of evolution." He smiled roguishly. "I'm running a series of fifteen trials, and you're just in time for number twelve." He flipped a switch labeled "Deluge." "Of course I know it's nothing like what you must have in your university lab. We don't have that kind of money."

"Dad, you know I suggested legitimate scientific experiments the

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foundation could do that are quite inexpensive."

Her father was bent over his tank, and she couldn't see his expression. "Josh prefers the dramatic, and I must say it sells. Had a visitor in here yesterday who wrote us a hundred-dollar check as soon as she saw the tank."

"But this could never be published in a real journal. There are no controls —" But you've got a more important matter to argue about with Daddy. The small brook flowing in the tank was beginning to rise. A plastic camel standing on its bank toppled in and sank. The water grew murky brown as it covered the low-lying areas. "Dad, it worries me how Josh thinks he can push you around. You knew I didn't want a public announcement, but you let him go ahead and make one. And I don't know why you told him in the first place."

Her father put his small pink hand on her shoulder. "I'm sorry, but I was so excited and proud of you." His smile was mild and childlike. "Josh thinks the publicity will help make your adviser more open-minded."

"Telling the story to a bunch of reporters who don't know DNA from doorbells?" Her knuckles whitened as she clenched the side of the tank. "I was working on trials to show the RNA wasn't degraded and that the cytoplasm was active — scientific evidence, the only thing that will change her mind. I don't expect Josh to understand that, but I thought you would."

"Jewel, I guess I was just too tired to resist Josh's enthusiasm." She hunched her shoulders, drawing away from his arm. "Yes, I know this experiment isn't going to convert many scientists, but yours — now, that's another matter. An entirely different genetic code could blow up their whole scheme."

Water was creeping up the hillsides, and soon the ark would float free. "Dad, it's only a bacterium. It's not as though I found a horse or a bird or a chimpanzee with a different code. It adds a new detail but doesn't change the overall picture."

"But, Jewel, two weeks ago you said —"

"Well, I never said the discovery would overthrow evolution, just that it would be a difficulty. But now that I've had more time to think about it, I can see it'll be a minor one." She watched her father carefully. You have to tell him before the press conference tomorrow. Or should I lie to the whole world for him?

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"Your good news was so important to me," her father was saying. "I was giving in to depression, but your discovery just perked me right up."

The pressure of sudden tears hurt Jewel's eyes. "Daddy, you should have called. I haven't been that busy," she lied. "Have you seen your doctors recently?"

"Yes, they say there are no signs of it returning, not yet, at any rate." He hung his head. "But I don't want to waste the time I have left feeling sorry for myself. Let me show you something — it's premature because the waters haven't receded, but I'm proud of it." He pressed a button, and from the ceiling descended a rainbow made of seven plastic arcs, each tinted one of the colors of the spectrum. "'And God said, This is the token of the covenant which I make between me and you and every living creature that is with you, for perpetual generations.'" Through tear-blurred eyes, Jewel saw the rainbow slowly turn, flashing mocking arcs of red and green light.

Back in her car, Jewel sat trying to calm herself by taking deep breaths. Daddy was looking so well, and then I had to get into a fight with him. At least I warned him that the discovery won't help creationists. But if he felt bad about the insignificance of my discovery, how will he feel if I tell the truth tomorrow?

No reporters lurked in the corridors of the Biology Tower, as Jewel had feared they might, nor were any of the students who shared her lab in it. Looking at the orderly arrangement of benches and cabinets and the precise and finely made apparatus calmed her. Here in the lab she was like a priestess in a temple, a priestess of the religion of truth, unsullied by blood (though there were sacrifices downstairs in other divisions), set apart from the jumble of everyday life, making her own tiny but reliable contributions to human knowledge. She trailed her hand down the smooth black top of the central bench, frowning at the paper towels someone had left littered on its surface. She paused to admire the way a beakerful of pipettes trapped the yellow light of the westering sun, a sheaf of golden rods.

She set up the electrophoresis apparatus, in order to show that the messenger RNA she'd used before was structurally intact and could still code for a specific protein. Then she turned off the lights to discourage visitors and sat in the growing darkness, listening to the faint hum and crackle of the apparatus. This stool she sat on now was the same one she'd

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been sitting on two weeks ago when she had her flash of insight. Back then she'd simply been trying to determine the sequence of the cytochrome *c* for *V. albus*, so that she could calculate its genetic distance from a similar species of bacteria, found in warmer, shallower waters. That day she'd dropped her only vial of *V. albus* cytoplasm on the lab floor. Since that afternoon she was supposed to deliver a large quantity of *V. albus* – manufactured cytochrome *c* to the overworked protein sequencers downstairs, she'd sworn in frustration. Then she'd remembered one of her lab partners had left a big batch of *E. coli* cytoplasm in the refrigerator.

As she drew off several cc's of this cytoplasm in an automatic pipette, she remembered the slide of the genetic code her father liked to show in his lectures, and how impressed people were when he told them the code was shared by all living things. But she'd soon learned in graduate school that the universality of the code was in fact a strong argument for evolution, revealing the common ancestry of all organisms. This sharing of the code would enable the blueprint given by *V. albus*'s messenger RNA to produce exactly the same protein in *E coli*'s protein factory as it would in its own.

She added a few clear drops of *V. albus*'s messenger RNA for cytochrome *c*, shaking the test tube to swirl the RNA into the viscous cytoplasm. She went to the refrigerator again and removed a tiny vial of cytochrome *c* antibody. The antibody was a test for the presence of cytochrome *c* — it would link up only with that specific protein, precipitating it out as a fine white powder.

But the solution remained stubbornly clear. She remembered seeing the lines on the skin of her palm magnified by the fluid in the test tube. But the *E coli* cytoplasm must be active; just that morning she'd seen Bob use some of it without a problem. And she was sure her glassware was clean. Puzzling.

She walked to the sink, started to dump the useless solution — hesitated. Hadn't Candace said it was often more important to know why something didn't work than why it did? "Science is in the surprises." Jewel put the tube in a beaker, and elbows on the bench, rested her face in her hands. An idea was nudging the lighted part of her mind: perhaps the messenger RNA didn't work because *V. albus* had a different genetic code.

She shook her head. Why should an obscure and yet ordinary bacterium have a unique code? Still, down in the deep seabed, things changed slowly, and life might linger there that had been outcompeted elsewhere.

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A voice in her mind said, "God put it there as a sign of His direct creation," but she ignored the voice as she'd been doing for the past couple of years, until it was now so faint she could hardly hear it. She looked at a stoppered flask at the end of the bench, its contents cloudy from bacteria in solution. The whole idea was crazy. Still, she could easily get more *E. coli* cytoplasm from other people and see if the RNA also failed to work in theirs.

FIFTEEN MINUTES later she was back with two more test tubes of *E. coli* cytoplasm. She added messenger RNA to both, then cytochrome *c* antibody. Her hand shook slightly as she pressed the button on the automatic pipette. No precipitate appeared. She shook the tubes, held them up to the window. Nothing — clear as light.

"It's probably something wrong with the RNA," she told herself. But in only a few hours, she could make up a new batch of *V albus* cytoplasm to test the RNA. She got some more whole cells from the refrigerator, broke them open with ultrasonic waves, put the test tube in the centrifuge, and went out for a long lunch.

When she returned and removed the tube, it contained a gray pellet at the bottom, composed of the cell walls and other debris, and a few centimeters of clear fluid, the cytoplasm. She added the messenger RNA to it, and, after taking several deep breaths to calm herself, a drop of antibody. She bent down to study the fluid — a fine white powder was indeed appearing in it. So her messenger RNA did work in its own cytoplasm. She took more RNA and added it again to *E. coli* cytoplasm, then injected a bit of antibody. The fluid remained clear. She removed the tube from the rack, stoppered it, and shook vigorously. It remained clear. She went over to the window and held the tube up in the sun's light. Nothing to be seen but the blue sky beyond.

Her hand shook when she returned the tube to the rack, and her knees were weak. Yet everything in the lab looked the same: there was no music of the spheres, no golden light leaking forth. No universal genetic code — here was a missing link in evolution that really mattered.

She found herself dialing the number of the foundation, asking for her father. Dad would be so happy, so proud of her. "If I'm right, and I'm pretty sure I am," she was telling him, "it means this bacteria is a serious

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anomaly — it doesn't fit anywhere on the evolutionary tree."

Her father was delighted. "When are you going to tell the world?"

"Well, I have to be sure I'm right first — I haven't even told Candace Grey, my adviser, so please don't tell anyone else until she confirms it —she'll deserve credit, too, because she thought the bacteria might be genetically interesting."

"Candace Grey, the militant evolutionist, digs her own grave — great!" said her father. "I'd love to ask her what consequences this discovery has for the theory of evolution."

But Candace had held up a hand to stop Jewel's flow of words. "You must not have done the right controls. How did you know that the *E. coli* was still active and that your RNA wasn't degraded?"

"But the RNA worked in its own cytoplasm."

Candace studied the smoke from her cigarette, not looking at Jewel. "Then there's the possibility of contaminated glassware, among other things."

"So should I do electrophoresis to show the RNA is intact, and test the cytoplasm to show that it's active?"

"I think that would be a waste of time. I'd like you to get back to comparing cytochrome *c* sequences. I want to see some preliminary results this Friday. You can have your dissertation done by the end of the semester if you don't go hunting for things that aren't there."

Afterward, Jewel hid in a stall in the lavatory and cried. But she resolved she'd do electrophoresis of the RNA and test the cytoplasm anyway — that would give her evidence Candace couldn't ignore, or Jewel'd know for sure that she'd made a foolish mistake. But Candace was not swayed by Jewel's second set of positive results. She told Jewel, "Ninety percent — no, make that 95 percent — of science is dull plodge. The sequencing is what you'll learn from, not this." Yet she had not explained how Jewel got her results. So on the morning of the day Jewel went to visit her father at the foundation, she'd been redoing the electrophoresis, planning to show the results to another professor. It might be an idiotic mistake, not a great discovery, but Jewel wasn't going to give up until it was explained. Then someone had said she was wanted in Candace's office. As she went down the stairs, Jewel hoped Candace hadn't heard that she was still working on the coding idea.

Candace was at her desk, grading a stack of molecular biology tests.

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Her open lab coat revealed a green silk blouse, and there was a cigarette smoldering in the crystal ashtray on her desk. "Jewel," she said, "have you been talking to any other people about this coding idea of yours, especially reporters?"

Oh no, thought Jewel, he didn't. "Hm, well, the only other person I told besides you is — a relative."

Candace put her red pencil down on the stack of exam books. "Saul Kim of the *Times* called to ask me if it were true a grad student in my department had 'refuted evolution.' He'd heard this from a source in the Foundation for Scientific Study of Creation.'"

Jewel hunched her shoulders and focused her eyes on the floor. "Oh dear."

"Of course I told him no such thing had happened, though there was a student — and he did have your name — with whom I had a dispute over experimental results, but it was nothing significant. Then he told me they were saying I was persecuting you because the discovery ran counter to my scientific prejudices."

Daddy, I just told you again yesterday that I needed absolutely no help from the foundation. "Believe me, Professor Grey, I didn't say anything like that to this person. I just said I thought I'd discovered a new code."

"So you do know someone at this foundation?"

"Um, yeah, Leroy Meeks."

"Meeks? So he's —"

Jewel wished she could shrink herself down to the size of a bacterium. "My father."

Candace laughed without amusement. "And so his own daugher is a defector to the enemy?" She leaned toward Jewel. "Was it your father who debated Giles Spenser three years ago?"

Jewel blushed as she nodded. Giles Spenser had had a fatal heart attack as he crossed the stage to shake her father's hand at the end of the debate. Everyone in the department knew that Candace, a protégée of Spenser's, blamed Leroy Meeks and his hecklers for the old man's death. Jewel had been one of the foundation plants in the audience.

"But you didn't tell your father to announce your 'discovery' to the world?"

Jewel picked at a bit of loose cuticle on her thumb. "Of course not. But he probably couldn't resist telling others there, and so the news

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got out." Daddy, why can't you say no to Josh?

Candace was studying the view out her window: California hills, green under spring rains. "I must admit I'm puzzled about why someone with your background would go into this field."

"I used to go with my father when he gave lectures. That's how I first got interested in biology. I helped him do little demonstrations. 'Experiments,' we called them, but of course they really weren't." There was a spot of blood at the base of her thumbnail.

Candace shook her head. "I think the best thing would be not to ignore this; Saul said the story's spreading fast and far. We should have a small, low-key press conference as soon as possible — maybe even tomorrow. I'll give the background for laypeople, Dr. Haggerty can outline departmental policy, and you explain there's no repression here."

You still haven't said what was wrong with my experiment, Jewel thought, but she nodded.

"And perhaps you might speak to your father," said Candace. "Do you understand that his foundation will gain nothing here, even if we did have a new code? Of course, it would be scientifically fascinating. . . ." She gazed at the smoke spiraling from the cigarette in her hand. "But if you'd rather not speak to him, I can understand. I'd imagine that your relationship is rocky."

Jewel thought of her father, how he hadn't opposed her plans as had many of her teachers when she decided in her senior year that she wanted to go to a graduate biology program instead of medical school. He'd said, "I know God has given you a great gift; don't let those old wives discourage you from using it. There's nothing you can discover in God's universe that, honestly looked at, would undermine His truth." And he'd continued to support her studies, even when she wanted to quit after his cancer was diagnosed during her first year. But their conversations about what she was learning had grown fewer and shorter with each year. "Actually, we get along pretty well." Of course, Dad thinks I'm still a creationist.

"He isn't concerned about your loss of faith?"

"Oh, I'm still a Christian. I go to Evensong at the Episcopal church a lot." Dad thinks I still go to Miller Bible Church.

"Well, then I'm just amazed at his tolerance. But do you think he can be persuaded to call off his posse?"

Josh's posse. "I'll try. I'll certainly tell him he's got to stop saying I'm being persecuted."

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Candace looked searchingly at Jewel. "Since you say he's so supportive of your career, you must make clear to him he's close to causing you great harm. Many, many people are going to think that you asked him to do this, and some are going to think that you are a creationist yourself."

Jewel nodded, swallowing to ease the lump in her throat. She was sure there would be someone at this conference from the foundation who would ask for her views on creationism. If she answered honestly, how would her father take it? His doctors had said it was important for his remission that he maintain a sense of purpose in life.

So, after leaving Candace's office, she'd gone to see him but hadn't managed to tell him. She could, of course, still call, even drive over to see him again. The RNA had reached the bottom of the gel, so she turned off the voltage and began to unscrew the glass plates that held the gel sandwiched between them.

Someone knocked on her door, then opened it before she could respond. It was Candace, her lab coat actually wrinkled and wisps of hair escaping from her chignon. "Well," she said, "the press conference is scheduled for ten o'clock tomorrow morning. The p.r. people said to wear something dark blue; do you have any decent-looking dresses?"

"I think so." Jewel hoped Candace wouldn't ask why she was doing the electrophoresis. "I saw my dad, but he can't stop the story." He doesn't even regret starting it.

Candace sank down in the lab's battered armchair and, ignoring the "no smoking" sign, lit a cigarette. She looked away from Jewel's frown. "Fifteen cigarettes a day isn't a great health risk." She tugged at the hem of her lab coat. "This is number nineteen."

To fill the ensuing silence, Jewel said, "I hope this conference is thoroughly boring."

Candace tapped ash into a clean beaker. "That may be impossible."

"Since most people don't understand how important the universality of the code is —"

Candace held up a hand. "Jewel, I have to apologize." Jewel's heart skipped a beat. "This afternoon I had what I thought was a marvelous idea. I was going to run the immune test right before the reporters' eyes, to show this whole thing was a simple mistake in procedure. But" — she ground out her half-smoked cigarette in the beaker — "I couldn't get it to work, either."

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"The *V. albus* RNA didn't make the right protein in the other bacteria's cytoplasm?"

Candace nodded, covering a yawn with her hand. "Not according to the immune test. I ran it several times, changing conditions each time. I even made Haggerty do it — he was impressed but not convinced. I think that instead of running the conference as a response to rumors of suppression, we should bill it as a preliminary announcement of some exciting findings. A little premature, but you and I should be able to rough out the code variations in the next two weeks. Then we can get a paper to *Cell*." She smiled at Jewel.

Somewhere down the hall a phone was ringing, but no one came to answer it. Jewel said, "So everything is all right?"

"Yes, so long as those creationists don't make an excessively loud noise. I'm afraid they'll try to treat this as a serious blow to evolution, and trade on your relation to their star speaker. Of course, it doesn't weaken evolution at all, but many people won't understand that after they've muddied the waters."

She's angry at me for having the wrong father, Jewel thought. "Dad's not an evil person, you know," she said sullenly.

Candace shrugged. "I'm sure in many ways he's exemplary. But a stubborn opposition to the facts doesn't do his religion any credit in my eyes."

"Transformed cladists are legitimate scientists, and some of them don't believe in evolution." Jewel laid X-ray film on top of the gel and set it aside to develop overnight. I should be deliriously happy, she thought.

"They're right that the fossil evidence is weaker than has been generally assumed, but they tend to overlook all the nonfossil evidence for evolution. Also, none of them claim the world was created one million years ago."

"Six to twenty thousand," said Jewel. If you're not politer, she warned herself, Candace might want to do the code breaking with someone else. But courtesy seemed disloyalty to her father.

To her surprise, Candace put a hand on her shoulder and squeezed. "You must be all worn-out. I'll save the preaching for tomorrow. What's that print for?"

"To show my RNA was intact. I was thinking of showing the results to Professor Haggerty."

Candace laughed. "It's a good thing, I guess, that you didn't listen to me. I was too busy until now to pay proper attention to your results."

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Jewel turned away, concentrating on her apparatus. If Daddy hadn't let the news slip, would she ever have changed her mind?

"How about dinner at that new Japanese place?" asked Candace.

"I'm sorry, I think I'd better go home and rest." And call Daddy.

"Well, get a good night's sleep." Candace paused at the door. "Sorry if I hurt your feelings. I'm tired, too."

She's going to get equal credit for this discovery, Jewel thought as Candace closed the door behind her. And I'll have to tell everyone how supportive she was. But she did give me *V. albus* because she thought there was something odd about it.

When Jewel was back in her dorm room, spreading peanut butter on a slice of bread, she realized she still hadn't called her father. But she was so tired; she needed a little nap first. She stretched out on her bed, but couldn't sleep because of the faint drone of a TV somewhere below her in the building. Her mind wandered back to the time when she was nine years old, helping her father as he toured churches with his creationist presentation. In those days he wore a cowboy hat and string tie. Most of the churches were poorly ventilated, and in the hot midsummer nights, her father's pink face would shine with sweat. She sat off to one side, proud of the new dress her father had let her pick out for herself, holding in her lap a plaster cast of a human footprint beside a dinosaur's. It was a gimmick her father would soon drop when he learned it was fraudulent, but he'd always be nostalgic about its effect on audiences. Jewel used to picture in her mind the man or woman and the dinosaur: the human wearing a neat apron of fig leaves (was it Abel or old Eve herself?), and the dinosaur (was it an allosaurus or a stegosaurus or a small, friendly tyrannosaurus?). Then her father would call her to hold up the cast in the spotlight.

Jewel frowned and turned to her other side. She'd been a firm creationist well into grad school. But it had been that Giles Spenser debate, the summer before she started at the university, that struck the first serious blow against her faith. She thought back to the crowded amphitheater, the stooped, white-haired old man, who'd read a highly technical dissection of the foundation's most scholarly publication, a book by a dentist arguing life could not have arise from disordered inanimate matter. Spenser had made no attempt to adapt his paper for a general audience, and read it without raising his eyes, as if they weren't there. Jewel was relieved; he was the first and only Nobel laureate her father debated, and they'd been

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worried he might carry the day, especially before a crowd mostly from his own university. Then her father had bounced up, delivering his standard five arguments with unusual force and eloquence. Even the nonfoundation majority of the audience seemed to be agreeing with him. The dying outdated system, Jewel thought, gives way to the new. Graduate school, where she was to be a godly spy surveying the weaknesses of the system from within, would be a pushover.

All of the people who'd come with her father, herself included, had been given index cards with questions already typed on them. Hers was one of her favorites, and she read it with a flourish: "How can your so-called science be objective as it claims to be, since it rules out in advance the possibility of God's actions?"

The old scientist had rubbed his chin silently. Finally, he said, "Young lady, who says your interpretation of the Bible is objective?" His voice quavered, but she strained to follow his words. "What's created on the first day? Night and day, darkness and light. On the second, God creates Heaven and the oceans. On the third, dry land with its plants. Then follows a second set of three days, in which God makes creatures to inhabit each of the realms created in the first three: moon and sun, birds and fishes, and finally, animals and humans. You see, two sets of three" — he held up three fingers of each hand — "symbolizing Yahweh's dominion over all the realms and beings of Heaven and earth, countering pagan mythologies where the realms are generated by combat between various gods and there is no plan or purpose for the universe. Or if, as you insist, the first six days are history in the modern sense of the word, what are we to make of God's resting on the seventh? Child, your people don't make good scientists because they can't see the poetry in the universe any more than they can see it in the Bible."

But evolution had no plan or purpose, Jewel wanted to say, but couldn't because the question-and-answer period was over. As the rest of the audience filed out the doors, Jewel headed toward the stage, so she saw it all: Giles Spenser crossing the stage to shake her father's outstretched hand and suddenly crumpling. Her father was instantly at his side, calling for a doctor and an ambulance, administering CPR. Jewel was never more proud of him than in those moments.

Later she'd asked her father if he thought, as someone from the foundation had said, that God's hand had directly struck down Giles Spenser. He

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shook his head. "No one dies unless God permits it, but sometimes the Devil wants us to see connections that aren't really there. I wouldn't want to say our little group deserves God's special favor when there are so many evildoers not yet struck down."

Nor was her father distressed when she asked him about Spenser's views on Genesis. "Notice how he made the Bible say what he wanted it to — not its plain sense?"

Jewel had walled off as best she could her memory of this incident. But when she learned of the importance and depth of his work, she became ashamed of the lack of respect she'd shown Spenser. And his words about the Bible continued to disturb her.

Her watch said 10:30. Her father was probably already in bed. But she could try early tomorrow morning. She turned toward the wall. None of this would have happened if the first place her father learned of her discovery had been a copy of *Cell*. Why did I have to tell him, when there were so many things I didn't tell? Like when I became convinced the earth was far older than even twenty thousand years, or that evolution within kinds was much broader than most of his colleagues would allow, until finally, I wasn't really a creationist anymore, just a person who suspended judgment on evolution. I was so proud of myself because I thought I was being superobjective — others would jump to conclusions about what happened thousands of years ago, but all I would concede is that once there were just reptiles, then there were reptiles and birds, but no one could ever be absolutely sure how the change occurred.

Yet I always shied away from trying to change Daddy's way of thinking, especially after the diagnosis. Once, I suggested the days of creation might be eons, and he said, "Seven twenty-four-hour days — that's what the Bible says, so that's what it must mean." But he hadn't used to be so firm about that interpretation, not back when he was working on his own. It's only because Josh Fader sees it that way. And Dad really thinks Fader needs him, because he's the only one Josh can talk to about his miserable childhood.

So why did I think *V. albus*'s unique code would be a major problem for evolution? Jewel realized that she must have wanted it to be, so that she could please her father. But for herself, in the days immediately after her discovery, her delight had soon given way to increasing annoyance and frustration, not just because of Candace's intransigence, but also the

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slowness of the procedure and the tension that caused her to be unusually clumsy. Determined to get validation as soon as possible, she even declined to go with her father to the sunrise Easter service at his (Josh Fader's) church. Jewel told her father that God would be better served by proof of the exception to the universal code. His tone showed his disappointment, but he'd said, "Whatever you think is right, Jewel." But she made little progress the rest of that Saturday afternoon: equipment wouldn't work properly, and materials got misplaced. Her father's gleeful words kept running through her head: "Honey, in just a few years, evolution will be dead, and by the time you're my age, it'll be forgotten."

When she dropped a flask and then cut her hand picking up the pieces, Jewel decided to quit. It was nine o'clock, dark and windy, but she found a small Mexican restaurant that was still open. While she ate, she could think of nothing but parallel ladders of dark lines, electrophoresis prints, but they had become meaningless smudges.

AS SHE went homeward down the dark street, she noticed light pouring from an open doorway. A hand-printed sign said: "Easter Vigil, 10:00 P.M." It was the Episcopal church where she sometimes went for Evensong — she liked the music and the fact there was no preaching. As she went in, she was given a small white candle with a cardboard ring around its base. The church's interior was dim, full of shadows. The service began with the lighting of a large candle from which flame was passed down the rows of pews, candle to candle. A long prayer was chanted, but Jewel, intent on the beauty of the light slowly filling the church, paid little attention to the words. Then a woman began to read the opening words of Genesis, and Jewel looked around to see if she could leave the church without attracting attention. But she had to squeeze past three people, and as she made her way down the pew, she could not keep from hearing the words. "God called the light day, and the darkness night . . . the first day; . . . and God called the vault heaven . . . a second day; . . . God called the dry land earth, and the gathering of waters he called seas . . . a third day." Finally, outside of the pew, Jewel stopped, stood listening to the rest of the story. "God made the two great lights, the greater to govern the day and the lesser to govern the night . . . a fourth day; . . . 'Let the waters teem with countless living creatures, and let birds fly above the earth across the vault of heaven' . . . a fifth day; . . . 'Let the

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earth bring forth living creatures, according to their kind'... and God saw all that he had made, and it was very good. Evening came and morning came, a sixth day."

Two parallel sets of three days, settings first created and then their inhabitants — she could not help hearing the form Giles Spenser had outlined. She sat in the end of the pew to think more about it, ignoring the story of the Flood now being read. Like a genetic structure, the story was beautifully arranged and very precise, and Spenser's interpretation locked so neatly together with it, just as an RNA probe for a specific gene would go only to that one gene out of the hundreds of thousands in the nucleus. She shivered and hugged her arms to herself.

The next day, Jewel ate Easter supper with her father in a crowded restaurant. As she sat across from him, picking at the ham and candied sweet potatoes, she wondered if she would ever tell him she had defected to the enemy's camp.

"Jewel, has that Dr. Grey seen the light yet?" her father asked.

Jewel shook her head. "She told me a second time to stop working on it, that it's all a dumb mistake. But when I finish gathering data, she'll have to change her mind."

"But, dear, you've already shown it to her twice. Don't you think some outside help is needed?"

"No, Daddy, absolutely not. Nonscientists can't settle a scientific dispute. If she doesn't listen, I'll go to someone else in the department. Besides," she added spitefully, "what if I happened to be wrong?"

Her father was spreading cranberry jelly on his ham with the back of his spoon. "I hope you don't mind," he said, "but I let a bit of the news slip to Josh."

Jewel shoved her plate aside. "Daddy, I asked you not to tell him."

Her father smiled; there was a drop of jelly at the corner of his mouth. "But it's so important."

Jewel was pressing lines in the fabric of the tablecloth with her fingernails. "Daddy, I don't think my discovery will convert a single soul."

Momentarily her father looked hurt, like a small child. Then he brightened. "I know there's much, much prejudice in academic science, dear. If they can't measure something, they won't admit it exists — that's what one of them told me himself, remember?" He touched the back of Jewel's restless hand. "And having those ideas is practically a membership

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card for being a scientist, isn't it? That's why I worry when you won't go to church with me anymore."

Jewel pulled her hand away. "Daddy, don't you trust me?"

"Of course I do; it's just that — well, I perhaps understand a bit more than you the strength of the world." Jewel looked up in surprise, but her father was concentrating on mixing together his green beans and sweet potatoes.

That had been four days ago, so Jewel had not been very surprised this morning to learn the foundation meant to save her om persecution. Poor Daddy, she thought, how long can the remission last?

When she woke the next morning, her stomach was growling, her neck was cramped, and her clothes were wrinkled and stale. Damnit, the press conference is today. Do I have to be in it if I'm sick? But she knew a shower and breakfast would cure her symptoms.

Before the conference she met with Candace, the sciences dean, the department chair, and the campus public relations director. Despite her tension, she was bored by the meeting — after congratulating her, they ignored her, concentrating on the best way to present the discovery without committing the university to its validity. The p.r. director, Bernadette Dukakis, turned to Jewel and said, "Talk a bit about your discovery and emphasize it's tentative, that all this attention embarrasses you and that you and Candace have always been a close-working team."

Candace added hastily, "It's important that we not give their story any bit of support."

Jewel hesitated, but finally she nodded.

As they rode the elevator up to the colloquium room on the top floor, Candace said to Jewel, "I'm afraid your father may be up there."

Jewel said, "I'm sure he is."

"Well, I hope he's still as understanding as you said he's been before."

When the doors slid open, they saw several strangers in the hall and more in the room itself. Jewel's father was indeed there, looking uncomfortable in a new navy pin-striped suit, talking earnestly with Josh Fader, who was six-five, had blow-dried hair, and whose white teeth gleamed in a permanent predatory smile. A fist tightened in her stomach.

When the proceedings began several minutes later, with Jewel and her seniors seated behind a long table at the front of the room, there were at least twenty-five people and two television cameras in attendance. As

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Bernadette Dukakis rose to introduce them, Jewel accidentally met her father's eyes, and he winked at her. She looked down, blushing, and kept her eyes focused on her water glass during the dean's brief talk (mostly about how pleased the university was with this "potential find") and the chair's longer talk (he did a fine job outlining her experiment for the lay audience and made it perhaps a little too clear he didn't believe the results).

Candace, immaculate as ever in a beige knitted suit and ivory blouse, rose. "I won't bore you, ladies and gentlemen, by repeating what's gone before. I'll just say that when Jewel Meeks first came to me about this, I thought that she was merely stubbornly refusing to see she'd made a mistake. But later I decided to try it for myself — though there was only a slight chance she was right, it was too important to be ignored. As soon as I'd confirmed it, I let Jewel know, and naturally she was overjoyed — well, I'll let her describe that."

Jewel suddenly found herself on her feet, lights bright in her eyes, a sea of faces before her. In a brief flash of memory, she saw the little girl who had held up the plaster cast. She laced her fingers together so their trembling wouldn't show. "It's this way," she began, and the steadiness of her voice surprised her. "It's just the way it's been described. I wasn't persecuted, just asked for better evidence. And since we haven't completely confirmed it yet, I don't want to say anything more about it." She sat down, pleased with her uncontroversial answer.

But nearly everyone wanted her during the question-and-answer session. "What kept you thinking this was a new kind of DNA, not just a faulty experiment?"

"You mean new code, not new DNA. Well, maybe it was because I didn't know all the things that could go wrong." She giggled nervously.

But the p.r. director was acknowledging Josh Fader, who seemed to make the room too small when he got to his feet. "Couldn't your discovery, Miss Meeks, be attributed to the fact that you are not a dogmatic evolutionist, despite the pressure on you to be so?"

Immediately all the reporters stopped whispering and looked at her, as if they smelled a fight. Jewel rubbed her sweaty fingertips on the slick Formica of the tabletop. "I don't think issues like that play any part in it. Anyone would have noticed something unusual."

But Fader wasn't going to let her off. She saw him poke her father's elbow, and he got to his feet, his round face anxious. "Isn't it true

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you don't believe in evolution, Miss Meeks?"

Jewel felt her face grow fiery hot. She hesitated. Candace whispered, too loudly, "There's no need to answer that —"

"What does it matter what I believe? What matters is what's true, but there are always other people who won't believe in what you or I are sure is true."

Josh Fader's voice boomed out, "But what do you believe?"

Jewel realized the lump growing in her throat was due to anger, not sorrow. Why should she lie to protect her father's feelings when he let himself be so manipulated? She put her hands flat on the table and leaned toward Josh. "Of course I accept evolution. Anyone who knows the facts and has the least bit of honesty would. The whole premise of the original experiment I was doing was based on evolution — comparing differences in the genes of separate but related species to see how long ago their ancestors diverged.

"I don't dig in the ground, but every day I deal with fossils. Take pseudogenes, for example. They're genes that don't work because they've accumulated too many mutations. Then there're introns, sequences of DNA in your genes with no function whatsoever. In fact, most of the DNA in cells doesn't have any apparent use. If you were spontaneously created a few thousand years ago, why would God put all that clutter into your chromosomes? But you've got them; I've got them; everyone is a walking example of evolution —" She paused to brush the hair from her forehead. Her father's face, beside Josh's shoulder, was a pink blur — were her eyes watering? "I have to confess that emotion kept me for a long time from admitting what I knew to be the truth, saying no to evolution long after I should have accepted it. It was only after I discovered this unique code that it wasn't a matter of loyalty, but of truth and falsehood." She realized she was beginning to cry. Damn.

Who was that old man with bent shoulders getting to his feet and pushing toward the open doorway? There was still time for her to say, Dad, I didn't mean it. Don't hurt yourself. But instead, she heard herself saying, "When parents lie to children, it makes the children lie back to them." Then she really was crying, Bernadette was saying the conference was over, Candace was putting a protective arm around Jewel and turning her away from the audience, and Jewel was trying to stammer out, "Not a boring conference, was it?"

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Candace took her to her own home, and they sat on the back deck drinking iced tea and talking, mostly about the safely neutral and pleasant topic of setting up the experiments to crack *V. albus*'s code. But soon, Jewel excused herself to borrow the phone and call Becky, her father's closest friend at the foundation. "Yes, your dad and Josh came back together a couple hours ago. Josh was pretty red in the face, and your father told me you'd given him a lecture within an inch of his life. . . . No, he didn't seem depressed. . . . Yes, dear, your father told me that you're no longer with us, but he apologizes if he's hurt your feelings in any way. Would you like me to transfer you to the Flood Room?"

"I guess so." Jewel stood waiting, curling her bare toes into the thick carpet, almost prepared to hear that her call couldn't be transferred because her father had drowned himself in his tank. But he sounded normal, though not sunny. "Well, honey, you almost got me fired, but Josh deserved it for his pressure tactics."

Jewel was so relieved by his acceptance that she decided not to ask why her father had cooperated in Josh's strategy. "Your feelings aren't too hurt, I hope —"

"Nah, I was expecting it sooner or later. You can't work there and not believe it, any more than I can work here and be a Darwinian."

"Daddy, it's true whatever side of town you're on —"

He chuckled. "That's my little girl. Young people always have to be sure they're right."

Two days later, when she was packing the equipment in her lab, preparing to move to Candace's larger one downstairs, her father walked in. He seemed quite normally cheerful as he studied the apparatus — he'd never seen her lab before because he'd always refused her invitations to show him around, saying he was afraid someone might recognize him and embarrass Jewel. He was especially impressed by the electrophoresis prints she showed him, explaining how DNA and RNA neatly lined themselves up into ladders, ready for quick decoding. "You almost might say Someone designed it that way," he said with a smile.

Jewel slapped the prints down in exasperation. "Honestly, Dad, I can't understand you at all. For years I kept from dealing with this whole matter, just because I didn't want to hurt your feelings."

His eyes softened. "Jewel, after my diagnosis, I had to rethink my priorities in life. I'd always been afraid I'd lose you, but I'd never held you

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back because I know that's the quickest way to lose a child. When you were speaking at the conference, I decided it wasn't so bad that I'd lost your mind, because I'd kept your heart."

"And how can you be so sure about that?"

Her father hoisted himself up and sat on her stool, short legs swinging, eyes darting around the lab. "Just look at all these wonderful things. So much skill and so much money." He shook his head. "I couldn't ignore all the arguments I've heard in debates over the years; some of my opponents were pretty good. But now I think I've figured it out, though Josh wouldn't like my explanation, and I doubt you will, either: God doesn't allow us to prove anything for certain, not even His existence, so we have to consider what ways of looking at the world are useful and what they're useful for. Your way is useful for science; mine for religion and morality."

Jewel bit back her objection. How could you answer a skepticism like that? Or was it that she was still protecting his feelings? She handed him a test tube the size of her little finger. "You wanted to see *V. albus* — well, it's that cloudiness in the solution."

Her father held the tube up to the light and squinted at it. "'Where wast thou when I laid the foundations of the earth? When the morning stars sang together and all the sons of God shouted for you?'"

"That's God questioning Job from out of the whirlwind, isn't it, Daddy? But we're beginning to know the answers to some of those questions, at least partially."

Her father took her hand, placed the test tube in her palm, and gently closed her fingers around it. He asked, "Do we now? Do we?"

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Here's an oceangoing horror story from Patricia Anthony, who has written for Aboriginal Sf *and* Weird Tales. *Ms. Anthony has a master's degree in English literature and has taught in Brazil and Portugal. She currently works at the Dallas Morning News.*

The Name of the Demon

By Patricia Anthony

THE YANKEE WAS standing by the rail in his white pants and sweater. Looking at him nearly made me laugh. The sweater had that tiny yellow piping around the bottom that expensive sweaters have. I wondered if he thought we'd get busted, and he wanted to impress the Coast Guard.

He was looking into the water, and just seeing him standing there, the yacht going up and down, made me feel funny.

The deck was slick, so I slid more than I walked over to where Dale was. Being in the bridge wasn't good, but it was better. We were traveling into the wind, and when the prow sliced the swells, a fine spray washed over the rails.

"He carrying?" Dale asked. His hands were sure and steady on the wheel. Looking at his hands made me feel safe.

"No."

"Stupid of him. Trusting of him. Ease on down, son," Dale chortled. "Easing on down."

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I bent out of the Yankee's and pulled the Browning 9-mm out of a cabinet. When Dale cut the engines, the wash nearly threw me off my feet.

"Watch it," I snapped, grabbing Dale's seat to keep myself from falling.

"Gotta get your sea legs, boy."

"Do it to him quick, Dale. I just want off this fucking boat."

Dale didn't pay any attention. He was used to my grousing. "Amateur Yankee's gonna get his sea legs," he laughed. "Deep down, twenty-foot sea legs." Leaning to his side, he picked up the Uzi that had been resting under a sky-blue cushion.

We were counting down to zero minutes. I was standing half in and half out of the shadow of the bridge, and the Texas sun burned where it hit. In the shade my right arm was cold. The patterned gun grip felt clammy.

"Mr. Morrison?" Dale called.

The Yankee started walking up the deck to where we stood. I glanced around. Padre Island was a blue haze to my right. To my left was the exposed hump of an oyster reef dotted with neat gray-and-white gulls that looked like they'd cleaned up for the party.

"Yes, Dale? Anything wrong?"

"I don't know. Come see."

Stupidly, the Yankee came on, no fear at all in his face.

"You *did* put diesel in this thing, right, Dale? Port Aransas's still a good fifty miles away."

I was watching for the Yankee's expression when Dale pulled the Uzi. It was a good one.

"What. . . ," was all he said.

"Thought we might do some fishing," Dale told him with a smile. "Thought we might get us some bait and fish. Troll a bit. Don't you think that'd be fun, Billy?" he asked me. I was laughing too hard to answer. "A little trolling might be in order."

"Trolling," I said, and bent over to laugh again. I was laughing so hard I couldn't hold the gun straight. It didn't matter. Dale had the Uzi.

"You don't want to do this," the Yankee said, sounding a lot calmer than he should have.

"I don't know, Mr. Morrison. Ain't the stars propitious?"

Being with Dale always made me feel good. A few minutes ago, know-

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ing we were counting down to zero, my chest had felt so tight it had been hard to breathe. Now that Dale had taken over, my chest had unkinked.

The Yankee backed up a step, but there wasn't anyplace for him to go.

Dale's smile sort of shut down, the way it did when he started getting serious. "We got the names of your contacts in Cabo Bueno. We got $3 million of coke in the hold. It's my boat. As I see it, I got salvage."

The Yankee was quiet for a minute. He had a funny little smile on his face like he was hoping this was all a joke. "But you were recommended to me by a client of mine, you understand? A powerful client, remember? He wouldn't be happy to know you backed out on the deal."

"You won't be around to complain, will you, Mr. Morrison?"

"O.K. All right." The Yankee backed away, hit his hip against the railing, and stopped. "We'll work this out."

"I think it's already worked. And I think we're going fishing."

Dale held the Uzi on him while I tied the Yankee's hands. Up close I could tell the Yankee was scared. He stank of sweat. There were beads of it on his upper lip. His hands weren't steady, not like Dale's were always steady.

"You don't want to do this," he said again. This time it sounded more like he was pleading.

Dale told me to tie some rope around the Yankee's chest, up under his arms where it couldn't come off. Then he had me tie the other end of the rope to the boat.

"Jump in the water," Dale told him.

I stood out of range of the Uzi.

The Yankee stayed where he was, sort of shaking. "What do you think I do for a living, Dale?"

"You're some big-deal psychic. Old ladies come to you to find their lost poodles. I guess with the money you make, you bang 'em a little, too. Like when Aquarius is in the seventh house or something."

"Venus," the Yankee said, sounding more like his old self. "It would be Venus in Scorpio. I'm warning you."

I laughed so hard I had to sit down. Dale cocked his head as if he were really interested. "You're warning me."

"I'm a demonologist, Mr. Griffin. Not an astrologer. Not just a psychic. A demonologist. Do you know what a demonologist is?"

Dale's smile had sort of faded down into a washout of a grin. It was the

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sort of expression he got when he was tired of the game. "I know what it means, Mr. Morrison. But I don't believe in demons. Please get into the water."

"Nobody screws around with a demonologist, Mr. Griffin." The Yankee sounded perplexed. "Nobody's that stupid."

The Uzi ripped a few bursts past the Yankee's head, making a sound like the end of the world. The Yankee toppled over the railing and hit the water with a splash.

I jumped up, ran over, and saw that he was treading the green-gray water. He couldn't tread with his arms, of course, but his legs must have been going great guns.

He looked up. His fifty-dollar haircut was plastered down over his face. He was whispering something that didn't sound like English.

Dale cranked the engines and raced off so fast that the bow jerked up and knocked me to my knees. Behind the boat the Yankee made a frothing wake of white.

In a little while, Dale cut the engines back to idle and told me to go see if the Yankee was dead.

He wasn't. He was huffing, and looked tired. His legs weren't keeping him afloat very well anymore, but his head was more or less out of the water.

"I'm warning you," he said. I could hardly hear him over the growling of the engines.

I couldn't think of funny things as quick as Dale could, so I just leaned my arms on the brass rail and watched him.

He spat some water out of his mouth. "You're afraid of the ocean, aren't you?"

Dale came out from the bridge to look.

"I've watched you two. I've watched you a lot. Dependent on each other, aren't you? Billy more than you, Dale." At that moment a wave caught him, banged him pretty good against the side of the yacht, and slapped water over his face.

When he came up, he was spitting. It was awhile before he could speak. "Get me out now before it's too late. Dying is bad, but other things are worse."

I leaned most of my weight on my arms and watched him. The movement of the boat bothered me, but not so much that I would miss the

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"I got my own demons," Dale said. "And in a little bit they'll be coming your way."

show. "You think you know so much, but you don't know shit. There ain't nothing worse than the way Dale kills people." I turned to Dale, expecting to see him grinning, but he wasn't. He was looking real serious, and he wasn't looking at me.

"You think your demons are gonna save you?" Dale asked.

The Yankee laughed tiredly. "No. They won't save me. They love fear and death, even the deaths of the ones who serve." For a moment he looked resentful, then the frown was gone. "Everyone has a special demon, Billy. Did you know that?"

His dark eyes gave me the shivers. I wished that Dale would shoot him or start the boat again.

"Their own special demon. I have the name of yours, Billy. All I have to do is call his name, and he'll come. Get me out of the water."

Dale asked for the Browning, and I gave it to him. He raised the automatic and took careful aim. I saw the Yankee's eyes grow wide. His lips moved a mile a minute, but I couldn't hear what he was saying. At this point most people prayed, but I wasn't sure what a psychic would do.

The clap of the shot was so loud that I shut my eyes and went deaf for a moment. When I opened my eyes back up, I saw that Dale had wounded the Yankee in the shoulder. Blood streamed, making rusty red patterns in the water.

The Yankee was gasping.

"I got my own demons," Dale said. "And in a little bit they'll be coming your way."

He walked up to the bridge, put some gas to the engines, and dragged the Yankee a few yards. When he stopped, the Yankee was still treading water. Dale cut the engines and came back.

"The name of my demon is 'shark.'"

The Yankee was beginning to tire. His head didn't stay above water as much anymore. He went under, not over, the small waves.

"What's the name of your demon, Mr. Morrison?" Dale asked him.

The Yankee looked as if he was too tired to answer. A few yards away, I saw the first of the dorsal fins. The Yankee turned his head and saw it, too.

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Dale was enjoying himself at last. There was a big smile plastered across his face. I tried to enjoy it, but instead of thinking of how the Yankee was about to die, I was thinking of buying myself a big-busted, dark-headed whore, taking her to an air-conditioned motel back in Corpus, banging her, and watching some TV. Then I'd go out to dinner with Dale. We'd drink a lot and laugh. Dale liked the zero hours, but I liked the partying afterward.

"What's the name of the demon, Mr. Morrison?" Dale asked. He looked like he was having fun, and that made me feel good. I liked it when Dale was happy.

The Yankee was holding up better than what I'd thought he would. He didn't scream. He didn't beg. All of us, especially the Yankee, watched the fin slice silent and easy through the small waves.

Then the fin disappeared, just like that. One minute it was plowing water, and the next minute it was gone. A second or so later, the Yankee was jerked down, just like a cork when a bass strikes bait.

He surfaced the same time all the blood did. The water erupted bright red. There was enough blood for me to think that the shark had cut him in half. Only, if the shark had cut him in two, he wouldn't be treading water anymore.

It was almost over now. I could taste the beer in my mouth. I could almost hear the noise of the bar. I could picture the way the whore would rub up against me. I could imagine how Dale would kid me the way he liked to do when zero hour was over and the fun started.

Now there were more fins in the water; at least ten or so. Some were big and nasty; some were small and mean.

The Yankee either didn't have enough left in him to cry, or he'd decided to go out brave. The Yankee turned his face up to us. His eyes were wide open, so round it looked like it must have hurt to hold them that way. It was the way I'd seen eyes before when zero hour came around — like people, when they're about to die, want to see everything one last time.

His body splashed around a lot, so I knew his legs were still connected, but he was tired, and they didn't move smooth the way they should have. They didn't keep him much above water, either. A dorsal fin swept by his right side and bumped him. I wondered if the shark had taken a chunk.

The Yankee didn't pay any attention to the shark. His dark gaze settled

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on mine. All of a sudden his eyes relaxed, and there was a strange stillness in them. His mouth sort of turned upward a moment, and I wondered if he was trying to smile. "Alone," he whispered the minute before he was dragged under.

There was sun in my eyes.

I winced and put my hand up quick. Then I wiped the tears away. I hated that. Dale would think I was crying.

Blinking and squinting, I looked down to see that the Yankee was gone. There weren't any sharks, and there wasn't any blood. I guessed the sharks had eaten the blood, and I thought that was neat, so I turned to tell Dale.

He wasn't there.

"Dale?" I said.

I went to the bridge, but the bridge was empty. The boat was moving back and forth under my feet like it was alive.

"Dale?" I clambered down into the cabin. The beds were made. The john was empty, the door ajar. I walked into the tiny kitchen and stared at the bags of coke on the counter. The sun flooded in the round window, turning the cocaine blinding white.

"Dale?" My voice seemed to go out of my mouth a ways and disappear, like the silence had swallowed it up.

Stumbling back up the narrow stairs, I bruised myself pretty good. "Dale!"

I checked the bridge again. He wasn't there. The engines were off, and the air was heavy and quiet except for the soft slap, slap of the waves against the hull. To the side where the oyster island should have been was nothing but open water. I glanced around and couldn't see Padre Island anymore.

The tide came in, I thought. *The fucking boat drifted.*

I walked around the deck and saw that the anchor had been lowered. It surprised me because I couldn't remember doing that.

"Dale?" I wandered down and checked the cabin again. Then I went up to the bridge and sat in Dale's chair. I put my hands together in my lap and looked out over the water. There was a pressure in my bladder, not bathroom pressure, but sick, scared pressure. My head felt numb.

Dale would have known what to do. But in that time when the sun was in my eyes, Dale must have fallen over the side, and the sharks must have gotten him.

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After a while I went to the anchor winch. I started the motor and watched the chain wind in. After a few feet of chain, there was a soft clunk. Poking my head over the rail, I looked down.

Dale was there. Dale was gaffed on the chain, just like a fish. His dark hair was plastered down on his face, and his chin was resting on his chest. Where the chain came out of the skin between his shoulder blades, there wasn't a big wound like I might have expected, but a smooth pucker, like the chain had grown out of his back.

"Dale!" I screamed.

Real slow, he started to lift his head.

I jumped back from the rail and threw up all over the deck.

"God! God!" I was shouting. He couldn't be alive, not with that chain growing right through where his heart should have been; not with being underwater all that time.

I hit the winch and heard the splash as a body struck the surface. Sliding in the slick of my vomit, I ran to the bridge and keyed the ignition. Nothing happened.

"Oh shit. Oh shit," I was saying over and over. I ran to the opposite side of the boat, bent over the rail, and threw up some more.

I didn't see that, I was thinking. *Dale isn't on the anchor chain. I'm going to go over and hit that winch again, because all that's there is an anchor.*

But I couldn't. I just couldn't.

And I didn't want to stay on that boat.

Running down into the cabin, I got out the inflatable raft. Then I tore open a bag of coke and took a good-sized hit. It didn't matter that I got into the coke now, not with Dale gone. The coke made me feel better.

I was even laughing a little as I sat on the deck and watched the dinghy inflate. When it was full and round as a Mexican whore, I lowered it and loaded the coke. I got myself a couple of beers from the refrigerator, sneaking around the spot where the winch was like I was afraid Dale would see I was leaving him.

I was leaving Dale. I was leaving him hanging on the anchor chain.

Clambering into the dinghy, I got the oars out and put them into the water. Then I sat there.

I didn't know which direction to go.

My stomach was starting to feel funny again, so I thought about what

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Dale would do. Padre Island was north, so the afternoon sun should be to my left.

I looked up. Above my head the sun was a tiny, white-hot thing. The sea had a murky sheen to it, and where the sky met the horizon was a dazzle of light, misty blue.

Shouldn't the sun be setting? I wondered. *What time is it, anyway?*

It doesn't matter, I told myself. *None of this crap matters.* Padre Island had to be to the right of the boat, where it was before. I got the dinghy turned around and started rowing full steam. If I got into Padre, I'd find somebody, vacationers, maybe. I'd hide the coke in the sand, and I'd get them to come out and help me with Dale. I wasn't running out on him, not really. I was just going for help. It made sense. Dale would do that.

Rowing was O.K., seeing that I had the coke. When I started coming down from the high, I felt an ache across my shoulders and cramps in my arms, so I snorted a little more.

The oars were red. I looked down at my hands and saw they had frozen into claws. In the time I had been rowing, I'd rubbed blisters onto my palms, and the blisters had burst.

Opening up one of the beers with my teeth, I held the can with the heels of both hands and drank. The beer was hot. Licking my lips, I looked up to where the sun lay, a white aspirin tablet in the steel sky.

Shouldn't it be setting? I wondered.

Around me the sea stretched to where it was lost in the metallic summer mist. Squinting, I looked for the boat, but I must have gone so far I couldn't see it. I couldn't see Padre Island, either.

Maybe I was rowing the wrong way.

When the beer was gone, I tossed the can into the water and watched it float. My legs and arms were sort of shaking. Inside my chest, my heart was on a jittery coke trip of its own.

"Dale!" I screamed, not really thinking he'd hear me, but hoping he'd hear me all the same. "Dale!" I shouted across the empty water. If Dale could, he'd come and make a joke of it.

Cold fear oozed up my neck and spread itself over my sunburned shoulders. *Yeah, old Dale will come,* I thought. *Dragging his chain. His white face will peek over the side of the dinghy, and he'll smile with his puffy blue lips and say, "Hey, Billy. The water's fine."*

I picked up the oars real quick and started rowing like hell again, not

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bothering to check where I was going, but rowing fast, anyway. When I stopped the next time, it was because I couldn't row any farther. My back had seized up. My hands were bleeding bad, and I couldn't breathe steady for my crying.

"Dale," I whispered.

Dale would have known what to do.

I lay down as best I could in the bottom of the rubber raft and gazed up into the harsh noon sky. The sunburn on my shoulders and back had formed blisters that leaked crusty yellow fluid.

What time was it, anyway?

Picture a calm, beautiful scene, I decided. That was the way Dale used to do when he got upset. I tried to visualize a forest, but all I saw was a beach, the breakers coming in in long, marching lines.

Breakers.

I started to sit up, but couldn't. The ache in my back was too bad. It wasn't important, anyway. Waves went to beaches. Everything moved toward land.

Tears welled up in my eyes and slid, thick and heavy, down my cheeks. My mouth opened and made a "whuh whuh" sound like a kid when he's at the tag end of crying. If Dale had been there, he would have laughed at me.

It was O.K. Everything was going to be fine. The waves would take me, just like the crap that always washed up on beaches. The sea would take me home. And there would be people and laughter and something to eat. There would be women and noise and fast cars.

I relaxed and let the sea move me. With the sun beating down, turning the light behind my lids pink, I dozed. I dozed and listened to the slosh-slosh of the ocean. The ceaseless motion of the waves rocked me to sleep just like a baby in a cradle. Back and forth.

Back and forth.

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FILMS

HARLAN ELLISON'S WATCHING

Installment 37: *In Which Not Only is No Answer Given, But No One Seems to Know the Question to Ask*

SO THIS woman stands up in the Q&A audience during the second hour of this lecture I was giving at a Major American University — for which appearance guaranteed to warp the malleable and essentially tabula rasa minds of about eleven hundred students I was being paid a fee the scope of which one usually associates with deficit financing of nations the size of Burundi or that which is paid to genuine cutting-edge experts in arcane subjects — and she's doing the arms akimbo thing, and she says in this extremely snotty tone of voice, "Mister Ellison —

[Already I know I've got problems when they start off with that *Mister Ellison* shit, drawing out the *Mister* with a whole lot of attitude, exactly the way one of those IRS twerps asks, "And pray tell, sir, how is it that you have deducted fifty-three thousand dollars for entertainment on your return, when your total earnings for the year were fourteen thousand?"]

"— *Mister* Ellison, we've been listening to you decry the System for more than an hour, and we've yet to hear you offer a coherent, all-encompassing solution to the problem. Do you *have* such a solution, sir?"

To which set-up I respond in the only manner I've found, in twenty-five years of public speaking, that has any hope of satisfying someone who's been lying in wait for you. I say to her, "I didn't realize that it was incumbent upon one who perceived the problem to have a pat solution, as well. I am not Ronald Reagan, ma'am; I do not have all the answers to the questions that torment humanity. I am not an expert. It is more than my dear, late mother

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ever thought I'd be capable of achieving, that I'm even capable of stating the *nature* of the problem. Sadly, you have caught me out: your university has paid me a know-it-all sized honorarium, and I'm only a know-some-of-it. You should have booked Edwin Meese or Donald Trump; they seem to know the answers."

And I proceed with the lecture, doing the best I can.

Which is a great disappointment to the students, who have been conned and conditioned to expect that every speaker who struts his or her stuff will have some rigorously worked-out plan to repair the ozone layer, settle the pro-choice/pro-life conundrum, balance the federal deficit, feed the starving multitudes, or end white collar crime in a drug-free society.

In fact, though I come on like a know-it-all (which literary demeanor seems to drive some of you absolutely up the wall, heaven knows why), I do not know the answers to even a tiny fraction of the Great Questions.

It occurs to me that this sudden revelation, without easing you into it, might cause severe psychic trauma. I'm sorry for that; but I cannot, simply cannot, continue to live this lie. Despite the cheap sham so many of you have accepted for decades now, I must admit that there are a few things I do not know.

Like, for instance, the meaning of a phenomenon I have recently stumbled upon, the subject of this essay.

I haven't the vaguest idea what it means. I've taken note of it (as perhaps a few of you may likewise have done), and I'm prepared to describe it in detail. But what it means . . . well . . . I haven't the faintest. It will take the analytical skills of you, my faithful readers, to explain what it means.

I confess to feelings of inadequacy about this. Not to mention that it does seem to transgress the sacred lines of covenant between a know-it-all columnist and his audience, seeking your insights like this. If it were a more momentous matter, believe me, I'd figure it out myself.

What it looks like to me, is this:

Charles Fort, the unparalleled amasser of "excluded phenomena," inexplicable everyday mysteries that orthodox science cannot fit into a rational universe (which he called "damned" facts), posited a theory he termed *Steam Engine Time*: "When it's time for the steam engine to be invented," Fort more or less wrote, "even if Watt doesn't invent it, someone *will*, because it's Steam Engine Time." (With a nod to Papin, Newcomen and Savery, who were there before the Scot, Watt.)

The concept of Steam Engine

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Time is a useful rule of thumb. Not only in science — Pons and Fleischmann may not have actually stumbled across a cheap, clean fusion method, but it's certainly *Fusion Time*, so don't take any bets that out there somewhere is someone who *hasn't* — but in the arts, as well.

For instance, for no reason anyone can codify, last year we were "gifted" with a feckless congeries of movies in which kids switched bodies with adults, or narrow variations of that transmogrification. Foreshadowed by 1977's *Freaky Friday*, in which momma Barbara Harris switches body with daughter Jodie Foster, last year, of a sudden, whambam and splishsplash, we got *Like Father, Like Son* (late 1987), Dudley Moore into Kirk Cameron and vice versa; *Dream a Little Dream*, Jason Robards, Jr. into Corey Feldman &vv; *Vice Versa*, Judge Reinhold into Fred Savage &vv; *18 Again!* with George Burns into Charlie Schlatter &vv; and *Big*, with Tom Hanks just phumphing out of kidness into grownupness. And all of them in 1988. For why?

Well, though this is not the phenomenon of which I will speak in a moment, it is a *similar* oddity; and about *this* one I do have a theory. As opposed to the other one, coming up, about which I haven't a clue.

Steam Engine Time happens when the *need* for a Steam Engine is generally felt by the masses, even if they don't know that it's a Steam Engine after which they're hungering. There's a vacuum created, and this unspoken necessity becomes mother to the invention that rushes in to fill the unarticulated need.

In Hollywood, this last decade or so, we've seen the shameless pandering to the youth market become so oppressive that writers over the age of thirty cannot even get hired. The same goes for older actors, directors, techs in virtually every area of cinematic expertise. CEOs, snowed by MBA grads from Harvard Business School, put these arrivistes into positions of power. They cannot write, they cannot direct, they cannot hang a light, speak a line, design a set. But they have "input." And they all have the power to say no. They are young, and they understand flow charts, debentures, amortizing rolling stock, and best of all they lay their oblations directly on the bottom line.

And like the members of any group, they prefer to deal with their own kind. Immigrants flock to certain neighborhoods already tenanted by those who speak their native tongue. It's human nature. We trust our own. We are suspicious of outsiders.

The young executives prefer to

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deal with young men and women like themselves, who share their values and history... or what little of the eternal flow they perceive as history. They do not like dealing with older people, because in those persons they detect the judgmental over-status of Mother and Father. But they, the young execs, are now the power figures; why should they act as if Mother and Father are worth listening to? Isn't that why they got the MBA, so *they* could inherit the wisdom that equated with power? They develop their own Accepted Wisdom.

And one unshakeable conviction of that Accepted Wisdom is: old farts who've been at the game for decades cannot possibly be hip enough to produce a product that will inveigle the Nintendo Generation. The Accepted Wisdom is that not even multiple Academy Award winners — if they happen to be, say, forty-nine years old — can properly, effectively, intuitively relate to kids who seem unable to get enough sequels to *Friday the 13th, Meatballs, Police Academy, Revenge of the Nerds* and *American Ninja.*

This certain knowledge comes to us from what were formerly hyped as the Baby Moguls, who are nothing more than very young guys, raised on tv sitcoms, coughed out of film schools all over America, steeped in the validity of the *auteur* theory and business school tactics, but oblivious to the niceties of the Creative Act (and when cognizant of it, disdain it as ju-ju), who have conned and shouldered their way into executive sinecures at studios, networks, and production companies. And they know nothing, but they know nothing *arrogantly.*

The emblematic anecdote of this situation, a story currently going the rounds out here, is of uncertain origin: I've heard it repeated featuring 77-year-old actress Natalie Schafer (she who lists among her extensive credits the exquisite portrayal of Mrs. Thurston Howell III on *Gilligan's Island*), 80-year-old screenwriter Julius Epstein (who won an Oscar for writing no less a classic than *Casablanca,* as well as screenplays for *The Man Who Came to Dinner, Mr. Skeffington* and the 1983 Oscar-nominated script for *Reuben Reuben*), and 83-year-old writer/director Billy Wilder (two-time Oscar winner, among whose breathtaking credits one finds *Ninotchka, Hold Back the Dawn, Double Indemnity, The Lost Weekend, Sunset Boulevard, Stalag 17, The Spirit of St. Louis, Witness for the Prosecution, Some Like it Hot, Irma La Douce* and *The Apartment*). The other featured player in this anecdote has been, variously, Jeff Brickmont of HBO; 29-year-old

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MBA and Senior VP of Columbia Pictures (formerly at Orion), Rob Fried; Michael Levy, formerly of 20th Century Fox, currently president of Joel Silver Productions (who brought you *Lethal Weapon* I and II); and Sr. VP, Programming, Fox Broadcasting Corp., the ever-popular just-turned-30 Rob Kenneally, one of those Fox execs whom David Letterman refers to when he says the company is being run by "explorer scouts." Probably doesn't matter which cast is the accurate one, because in the case of this anecdote, they're interchangeable; and it's the thought that counts. Anyway, the story goes like this:

Billy Wilder is solicited by this young exec, to come in and "take a meeting" about some project or other they want Billy to write and/or direct. So he is ushered into the ostentatiously understated office of this big *macher* who still secretly uses Oxy-10 for his zits, and he shakes hands with the guy, and he sits down. Now, the *pesso-novante* smiles smarmily and says, "I'm a little embarrassed. I've heard your name a lot, of course, but I don't, well, er, I'm just not very familiar with your credits; could you run a few of the most important ones for me?" And Billy Wilder, who was a supertalent forty years before this clown was born, stands up and says with dignity, "You first."

In 1987, the Writers Guild of America, west commissioned UC, Santa Barbara sociology professors/-researchers William and Denise Bielby to prepare an exhaustive survey and study of the problems of discrimination as related to writers in the film/tv industry. The first report, covering the years 1982-85, was released two years ago and documented — from hiring records and studio reports as well as other sources of raw data — a pattern of non-employment that was not only dramatic in terms of the expected prejudices — against women, blacks, latinos and latinas, the physically handicapped — but nailed down with shocking statistics the widespread non-hiring of a new "protected class" of writers . . . those over forty. The WGAw membership is approximately 7500. 53% of that number are over forty years of age.

The second Bielby Report* was

**In the event you are not now attending one of the many schools of film at an American university, where this report can be read, and if you're morbidly curious about what the economic arena is* really *like in Hollywood, you can send a stamped, self-addressed envelope to: Mr. Jeff Wallace, Human Resources Coordinator; Writers Guild of America, west; 8955 Beverly Boulevard; West Hollywood, California 90048 and ask for a copy of* Unequal Access — Unequal Pay, *the 1989 Hollywood Writers Report. The supply is limited. You can mention this column when you make your request.*

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released on May 24th of this year, covering 1985-87. It suggested that things have grown even worse in the last two years. Of the 3395 writers in the WGAw who are over forty, only 47% saw employment of any kind in 85-87. And the pattern of non-hiring gets signficantly more obvious by the decade. Over fifty. Over sixty. And so on.

So having accorded you the background, my theory of why we suddenly saw a clothesline-hanging full of kids-switch-bodies-with-adults movies last year, my theory as to why Tom Hanks as a child suddenly gets *Big*, is obvious. The kids in charge of the industry, and the kids who write to order for them, crawled into Steam Engine Time where there was an inarticulate emotional need for the tots to *become* Mother and Father. Not just to sit there in the office and demean adults when they come in looking for work, but to *become*, physically and actually, the adults against whom they wield their power. It was an acting-out of the child's need to "play house." To show how much cleverer a kid can be with his adolescent mind, if miraculously shunted into a big person's body. It is a manifestation of the Me Decade's version of the Love Generation's dumb dictum *Never Trust Anyone Over 30.*

Think about it. The parallel is seen in all the tv spots for computer games and electronic gadgetry that they try to sell to kids on Saturday morning. Check out those ads. In virtually all of them, Dad (usually, because Mom is a girl, so what the hell can *she* possibly know?) and his son engage in some kind of vague competition at the keyboard. And Dad invariably dweebs out, and the kid either outscores him or solves the problem or makes Dad look like a retard.

Kids! Be the first in *your* neighborhood to make your old man look like an asshole! Screw the New Math, here's a sure-fire way to put that arbitrary power-broker, your FATHER, in his place. He may ground you for getting into his Jack Daniels, he may not let you use the car because your manner around the house lately has been appreciably more insolent than usual, he may scream to turn that goddam MTV crap down but . . . you're smarter than he ever was, or ever could be . . . and if *you* were *his* size, you'd kick the crap outta him!

Ergo, a rash of films in which precisely and exactly that happens. Dad is turned into a floundering, babbling pre-pubescent imbecile, while Sonny somehow manages to pull it all off as he masquerades in Dad's body gamboling through the Adult World.

That's my theory. I like it. It's nasty.

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But of the topic for this essay, I haven't a theory, a hint, a clue. And here it is. I call it the *Phenomenon of the Ichabod.*

Formerly, the male protagonists of motion pictures with whom we've been asked to identify, have been the Humphrey Bogarts, the Gary Coopers, the Sylvester Stallones, the Robert De Niros and Paul Newmans. Subsumed as Robert Redford.

Tall-seeming. (Redford is actually only an inch or two taller than your columnist at 5'5", but he's always *filmed* lanky.) Good-looking. Competent. Graceful under pressure. Inventive. Well, hell, simply *heroic.*

That's the way it's always been, with the occasional Edward G. Robinson or James Cagney or Paul Muni to break the monotony; but even *they* had such a high wattage of charisma and toughness that you overlooked in what deep shadow they stood when John Wayne or Randolph Scott towered over them.

But of late I've noticed how many of what I've come to call "Ichabods" (after the Washington Irving character, of course) are being cast as the heroes of dramatic or action movies. And when they're in comedies, they manage to *act* like heroes. I can describe the somatype so you'll know what I mean. (There will be minor variations from person to person, of course.)

Tall, thin, loose-limbed like Buddy Ebsen dancing or Ray Bolger as The Scarecrow. Thatchy hair, usually parted in the middle and blow-dried, almost always a colorless brown. Goofy faces best suited to expressions of consternation, confusion, embarrassment, chagrin. The kind of expression you see on the face of guy who doesn't know how to screw in a light bulb. Physically, they're in the somatology of Alan Alda.

Jeff Goldblum used to be the perfect example of that Ichabod image, when you saw him in, say, *Buckaroo Banzai.* But all that changed when he met Geena Davis and made *The Fly.* Now, as you can see again in *Earth Girls are Easy,* as you saw in *The Fly,* he emerges from the transformation chamber buck naked and festooned with great traps, lats and delts. An insouciant curl of matinee idol hair falling over his forehead. Intense looks. A hero. No longer an idiotic Ichabod.

The roster of Ichabods currently starring in everything from *Batman* to *The House on Carroll Street* includes the following:

Alan Ruck, Judge Reinhold, Ed Begley, Jr., Michael O'Keefe, Jeff Daniels, Lance Guest, Michael Keaton and Tom Hanks (though superhuman efforts are being made to convert these last two into the new

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Jeff Goldblum image). And, of course, the most extreme case, the king Ichabod of them all, Steve Guttenberg.

Don't ask me why the Ichabod has become the protagonist of choice among casting directors, producers, and *auteur* directors. They're all over the place, and you'll have no trouble visualizing the guys I mean, or the parts they're playing. They're not quite geeks or spazolas or nerds. They're more like Dagwood Bumstead falling over the postman. They're omnipresent, to the degree that they're even showing up in tv commercials: look at the guy in the currently-airing Sizzler commercials. So help me, he's a perfect Jeff Daniels clone. Herky-jerky, babbling, falling over his feet, utterly discombobulated.

What, in the American psyche, has altered? What, in our view of ourselves, has brought about Steam Engine Time for the deification of the Ichabod?

Are we simply surfeited with Stallone, numbed by Norris, shut off by Schwartzenegger and filled with ennui by Eastwood? Or is there something more interesting happening?

Hell, gang, I wish I could give you My Theory. But, as I said, there are just some things I note, that don't make sense to me. I know it'll shatter those of you who've dismissed me as a smartass who thinks he knows just everydamnthing, but I come to that place where I'm forced to cop to it: I'm just as often befuddled as the rest of you.

So if there's a perceptive student of social trends out there in the readership who can figger this one, drop me a line and I'll attempt to cobble up some sort of rationale for a future update.

Until that time, and until next installment, when I sing its praises, crawl hop swim fly to a theater to see *Field of Dreams*, based on Kinsella's gorgeous, tenderhearted book SHOELESS JOE. It may be the best film you'll see this year.

Till then . . . confusedly yours. . .

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This fine fantasy is Peni Griffin's first F&SF story. She has been published in Asimov's *and* Twilight Zone, *and she writes: "I was born in Texas, raised around the country as an Air Force brat, and currently live in San Antonio. 'Tikina-Londi' was written under the powerful influence of the Father of Texas literature, J. Frank Dobie."*

Tikina-Londi

By Peni R. Griffin

IT HAPPENED ONE time that Tikina-Londi had a baby, and she sent her hired girl into town to get an armlength of silk to wrap it in. As the hired girl came through the town, she saw Death walking, knowing him by the thinness of his face, and his lidless gray eyes. It's always best to greet Death politely, and head-on, so she said: "Good morning, sir! Where are you off to this fine bright morning?"

"I'm going to Tikina-Londi's," said Death. "She has a new baby I must take back to the Deadlands with me today."

"That's a long walk for a summer day," said the hired girl. "Why don't you stop in here at my grandma's and have a glass of eggnog?"

"That would taste good, but I'm not come for your grandma yet, and I wouldn't want to scare her any."

"Let me run and warn her, and you wait here." The hired girl ran into the house and whispered to her grandma: "Death's come after Tikina-Londi's baby. Do you think you could keep him here till I have time to warn her?"

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"Bring him in, girl, and I'll do my best," said her grandma. The girl ran out, and ran in again with Death behind her.

"I can't stay long," said Death. But the day was hot, the eggnog was cold, and he and the old lady had a large acquaintance in common. Soon the hired girl slipped out behind his back and ran faster than her legs could go up to Tikina-Londi's.

"What's the matter with you, running in this heat?" demanded Tikina-Londi when she landed on the porch. "And where's my silk?"

"Oh Tikina-Londi," panted the hired girl, "Death's coming for your baby, and I reckon he won't be long."

"My baby? What does Death want my baby for?" demanded Tikina-Londi; but it wasn't a question her hired girl could answer. "Well, he won't have him — not today! Here, take him over to the vineyard to be with his daddy awhile, and don't you come back till I hang the yellow bed sheet on the line."

The hired girl took the baby over to the vineyard, and Tikina-Londi found a log in the woodpile about the size and weight of the baby. She wrapped it up, put it in the cradle, and sat by it, singing a lullaby.

Up came Death. "Tikina-Londi, I'm sorry, but I have to take your baby off with me."

"What? He just got here!"

"I'm sorry, ma'am. I didn't make the rules, but I follow them, and it's time for him to go." He held out his arms. "He's got kin in the Deadlands will look after him fine."

Tikina-Londi held the log close to her breast. "Promise me not to unwrap him till you get him there. He's not feeling well, and I only just got him to sleep."

"I know the cure to every sickness," said Death. "Give him to me."

"Oh, but promise!"

"If it'll make you feel better, yes, I promise."

He held out his arms; but she held back still. "Oh, it's cruel hard! And how do I know, if I let you have this one, you won't come after the next, or the next?"

"I won't enter your house again for forty years," said Death.

"Forty years? Promise?"

"Yes, yes, promise, if you like. Now give him to me."

So Tikina-Londi gave him the bundle and watched him down the road.

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As soon as he was out of sight, she ran and hung the yellow bed sheet on the line.

When Death got to the Deadlands, Tikina-Londi's grandmother met him at the gate, and the first thing she did was unwrap the bundle to see which side of the family the baby took after. When he saw that he'd been tricked, Death shut his mouth tight, and marched back to Tikina-Londi's house.

The day he came back was the day people came to visit and see the new baby. Everybody was out in the yard, talking and laughing and admiring the baby like people do; but when Death stormed into the middle of them, they all fell quiet. Tikina-Londi snatched the baby out of his aunt's arms and ran inside.

"Tikina-Londi, bring me that baby," said Death.

"No," said Tikina-Londi. "He's mine, and I'm keeping him."

"He's mine, and you can't keep my own from me." Death started up the stairs of the porch.

"He's not yours, and you can't come after him," said Tikina-Londi. "You promised not to enter my house again for forty years."

Death stood still, his lidless gray eyes hard and glittering. All the neighbors and relatives stared at him. "You can't keep him in the house the next forty years, Tikina-Londi."

"That's my problem. Go away."

"I'll see you, Tikina-Londi," said Death, and strode away.

The guests stood silent till he was out of sight, then all started talking at once. At first they were scared, but then someone laughed, and everyone relaxed. They flocked into the house to congratulate Tikina-Londi, who smiled, turned red, and rocked her baby.

For a long while after that, nobody saw anything of Death, though they saw signs of him in the neighborhood, as always will be. The child grew as fast as children do, and had it pounded into his head that he was never to get beyond sprinting distance of the house, and never to go out of sight of his mama and daddy and the hired girl. At first this was simple enough, but as he got bigger and more rambunctious, and took to playing with other children, Tikina-Londi had her hands full keeping him inside. Sometimes she tied him to the porch, so she could get her work done without worrying about his running off to hide in the cedar brake, or head off for the creek where the mulberries grew. He wailed and he screamed, but never an ounce of give did he find in his mama. She would take him by the

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shoulders and shake him and say: "If you go off there, a tall, thin man will come and get you, and you'll never come back again."

"I don't want to come back again!" he hollered at her sometimes.

You can just imagine how that made her feel, but she swallowed it. Later, when she told him his bedtime story, he always leaned warm against her side and gave her his good-night kiss; and all the trouble was worth it to her.

"What are we going to do when it comes time for his schooling?" asked her husband. "What trade's he going to learn?"

"I'm not afraid of that," said Tikina-Londi. "Lots of useful things he can learn, right here on this porch."

The neighbors felt right sorry for the boy, and made a point to make life easier on him and his folks when they dropped by. "I guess she can't do no different," said the hired girl's grandma in private. "But it ain't good for the poor kid."

"You can say that to her face, if you like," said the hired girl. "I wouldn't care to."

Nor would anybody else, for everyone was just a bit afraid of Tikina-Londi now.

One day when the boy was about seven, word came that Tikina-Londi's sister three farms away was going to have a baby, and she wanted Tikina-Londi with her. She packed up her things with a frown on her face, for she couldn't well refuse; but she'd never been so far from her child for so long. "Now don't you go letting him out of your sight one minute," she said to her husband and the hired girl. "You know as soon as you turn your back, he'll be off for those mulberry trees, and ain't no way he'll get back if Death comes walking."

This was the very same afternoon that the hired girl was supposed to have off, but she could see the situation, and was set to take the next day — or the next, if need be — though her young man wouldn't be off work then like he was this afternoon. She figured he'd understand, all right, though she didn't want him to take it too awful well.

That's how she and Tikina-Londi agreed; but her young man wasn't any different from other young men, and he had his afternoon open just as usual. He knew Tikina-Londi's husband would be in the vineyard most of the day, so he just headed up to the house. Of course, once he'd come all that way, the hired girl couldn't make him turn back till he'd had a drink of eggnog and a rest.

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They played with the kid for a while, but one thing led to another, and eventually the hired girl said to him: "We're going to be around to the back of the house. If you need anything, or you see anybody, you just holler, and we'll be right in. And remember — I don't care if the house is on fire, you don't set one foot past that door."

"All right, all right," said the boy; and they left him alone.

He played with his wood horse; and he played with his blocks; and he got bored; and he got lonesome; and he heard a tap, tap on the window. When he looked up, he saw another little boy with a thin face and gray eyes, looking in at him.

"Nobody said nothing about opening windows," thought the boy, so he opened it up and asked: "What you want?"

"You got a bucket?" asked the strange boy.

"What you want it for?"

"I found me a mulberry tree with berries as big as my thumb, but I don't got a bucket. You want to come pick them with me?"

"I can get you a bucket, but I can't leave the house."

"How come? You sick?"

"Mama says Death'll come and get me if I leave the house."

The stranger boy snorted. "Don't be a sissy!"

About an hour later, the hired girl and her young man came back. At first they thought the boy was hiding, but they looked in all the closets, and under the chairs, and up the chimney; but there was nothing, just the window wide open and the fruit bucket missing. The young man went out to the mulberry trees, but all he found were a couple of little girls picking. "Have you seen Tikina-Londi's boy?" he asked.

"Long time ago," they said. "He was headed over this way with some stranger boy with big gray eyes; but he wasn't here when we came."

When Tikina-Londi came home next morning, she didn't scream or wail or throw things, as folks were half-expecting. She went up to the hired girl and said to her, real quiet: "This is your fault, you little slut. You get your things together and take your wages out of the cookie jar, and don't you ever let me see you round here again." Then she turned around, and she walked straight out, over field and over hill, through water and through wood, till she came to the big brass gate of the Deadlands, with the thin, dusty road before it and the crack underneath where all the opening and closing had worn the earth away. She stood and she knocked,

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and she knocked, and she knocked, till her knuckles were purple with bruises, and at last the porter came on his soft gray hind legs like a cat.

"You're a living woman," said the porter. "You can't come in here."

"Bring me Death," said Tikina-Londi. "I want to talk to him."

The porter went away, and came back again. "He don't want to talk to you."

"Bring him here," said Tikina-Londi.

The porter went away, and didn't come back. Tikina-Londi started up her knocking again.

Before the gate to the Deadlands, there is no day, and there is no night; there is no sun, and there is no moon. The sky is always gray-blue like late-summer afternoon when the sun is ready to go down. The ground is always dry and white, like the road in summer. Tikina-Londi stood at the gate and knocked till the blood ran down from her knuckles and fell red in the white dust, but no answer came.

Worn-out, Tikina-Londi began to cry. The tears ran down her face and fell to the white ground and made a river, and this river ran under the gate. Under the gate, and through the soft green fields of the Deadlands, until it ran into the green-brown waters of the River of the Dead, and made it salt.

After a long time, the porter returned. "Woman, woman, your knocking disturbs the dead. Go back to the living."

"Not until Death comes to me."

"Woman, woman, the River of the Dead is salt. The thirst of the dead is unquenchable now. They drink, and they drink, and only grow thirstier, because the water is salt with your tears. Go back to the living."

"Not until Death comes to me."

The porter went away again. Tikina-Londi knocked at the gates of the Deadlands, and the bones were coming through the skin of her knuckles. Tikina-Londi cried at the gates of the Deadlands, and her tears ran under the gate, salting the River of the Dead.

At last Death came to her, holding a silver ball in his skinny hand. "Tikina-Londi, why do you disturb us with your knocking? Why do you ruin our river with your tears?"

"Why have you taken my son from me?" demanded Tikina-Londi.

"He's not yours any longer," said Death gently. "He has been mine from the day you tricked me almost eight years ago. You're the one who has kept my rights from me."

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"No one has more rights to a child than his mother. I carried him before he was born. I rocked him when he was sick. I fed him when he was hungry. I saved him from Death. Look at my bones poking through my knuckles. Look at these tears I have shed for him. Aren't they enough to melt your stubborn heart?"

"All the tears of all the mothers in the world have not done that, and will not do that," said Death. "Tikina-Londi, would you like to see your son?"

"Oh yes."

"Then look." He opened the gates of the Deadlands just a crack, just wide enough for her eye, and she looked through. There was the River of the Dead, and there was her son on its banks. She could hear him crying as his great-grandmother tried to comfort him. "I'm thirsty!" he complained. "Why is the water so bad?"

"Give him water," said Tikina-Londi.

"I can't, until your tears have cleared away. It is you who have fouled the water for him."

Then Death shut the gate and held out the little silver ball. "Look in here, Tikina-Londi." She looked, and inside the silver ball were pictures, which moved, and she could hear voices, small and very far away. There was her hired girl, with no work still; everyone blaming her for what happened, and no one willing to give her a job. She was living with her grandma, spending her savings as slowly as she could.

Then the picture changed, and she saw her husband. He sat all alone in the evening, just sat and stared at the kitchen fire, scratching her name on the hearth with a burnt stick.

"This is all your fault," said Tikina-Londi, but not loudly. "If you hadn't taken my son from me, none of this would have happened."

"I have a job to do," said Death. "And I did it. Your job is to live. If you choose to neglect it, you can't blame me."

Inside the gate a child began to cry.

Slowly, Tikina-Londi turned and walked away; through wood and through water, over hill and over field, until she came to her own village. She went to her hired girl and said: "I'm sorry. Will you forgive me and come back to me?"

"I will, if you will," said the girl. "You go on ahead, and I'll put my things together, and be out in the morning."

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Tikina-Londi went to her own house, and went slowly in at the door. Her husband looked up, and looked behind her, but she didn't say anything about their son, only sat down beside him and stared into the fire, and at her name in charcoal on the hearth. He put his arm around her neck and said: "I love you."

Tikina-Londi put her head on her husband's shoulder, and made herself content.

COMING SOON

The December issue features "The Old School" a compelling and more than chilling story by England's Ramsey Campbell. Also: SF with an African background; "For I Have Touched the Sky" by Mike Resnick is a sequel to the well-received story "Kirinyaga" (November 1988).

The December issue is on sale November 2. To be sure of receiving a copy, send us the coupon on page 161, which is also ideal for early Christmas gift shopping.

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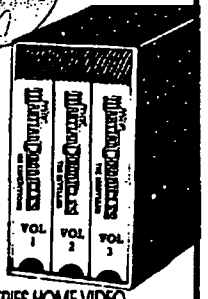

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Gary Wright published a few short stories in Galaxy *in the 1960's, including the stunning "Mirror of Ice," which has been included in many anthologies and textbooks. He then disappeared from the writing scene until recently, and he writes: "Now, in a hundred-fifty year old farmhouse on a dead end dirt road in the White Mountains of New Hampshire, there is time to rank writing back to the top of the list where it belongs."*

On the Wings of Imagination, Fly

By Gary Wright

HE WHEELED THE rattly old rig hard through the high-plateau farms, savoring the burly song of the big diesel and the whine of the eighteen wheels rolling. He was higher and bigger and more powerful, more important than anyone on the road but his brother truckers. He liked to say the word, "Brothah-truckers" so that it sounded like something else.

He sang:

My rig may be old, but I'm rollin' tough an' bold;
It's a good life I'm living on the ol' rollin' road.

He grinned. That wasn't too bad. Not a bad one at all. He'd have to work on it, but there wasn't anything else to do but sit up here, sing and watch the damn pavement unreel. That old daydream began again, the one about getting just one song sold to the right singer. Just one lousy

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song! Was that too damn much to ask? But hell, that took connections. Everybody knew that. Everything worked on connections. That was why the other brothah-truckers got all the good loads and the good runs, while he had to lick up what was left. The bastards! Why couldn't he get a break once in a while? Look at the Cold Creek Boys, playing up there at that hotshot club in Riverdale! Just one song did it for them, "Wings of Imagination"! And it didn't even make sense!

It flew through his mind:

On the wings of imagination, fly.
There's nowhere I can't go, good-bye;
There's nothing holding me I can't untie;
On the wings of imagination, fly.

Lord, that was terrible!

And he slid easily into that old abrasive feeling again that his whole damned life was nothing but a long downhill grade, getting steeper, and he was running it with a heavy load and no brakes. Damn 'em all! Everybody was against him! He was special — he *knew* that! He had special talents, and nobody knew it but him . . . and, O.K., maybe he didn't even know what they were himself, but he knew he had 'em! Maybe some secret, mystical talent, something nobody else had. Maybe like mind reading or something like that. There were a lot of times when he knew what people were thinking. The bastards! But here he was trapped in a stinking marriage with a fat slut, and pushing a damn truck from Nowhere to Never to support her overgrown ass. Some great life!

He gazed at the high, far mountains ahead, and thought about that cabin he would like to have up there somewhere, someday. Lordy, that would be nice. . . .

Sometimes he could almost feel it, that cabin. He had dreamed about it so much, he could close his eyes and see it. Almost smell the woodsmoke. Built of logs, snugged into the trees on a hillside. One room, peeled pole-and-plank furniture. Big stone fireplace. A man's place, by God! Some Indian blankets. Big bed — yeah! Just him and the cabin and the quiet of the mountains, and no damn nobody on his back pounding him down all the time. And no damn impossible sixteen-hour days hammering eighteen wheels of freight three-hundred-some miles, and then expected to load

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and unload and help deliver it, too. And no more damn bitchy wife giving him hell all the time because of too many hours and not enough money. "Do this! Do that! You'll never amount to nothin'!" Flapping her damn mouth till she could set up a breeze on a calm day. And no more damn vicious suppers slopped on the table in sullen silence broken only by the slamming of plates and pans. And no more damn arguments and accusations and cutting each other to pieces all the time because it was the only fun thing they had left to do. It would just be him and the cabin — maybe some fine female company upon occasion — and time out for a while.

Yeah! A time-out, that's all a man needed. Right!

"Time out!" he repeated one of his favorite lines. "A man wants peace and quiet! And spell that P-I-E-C-E!"

He sang:

I want some time out, baby;
Want some time to be free;
Want to get off to the country
So you can get off on me.

He laughed so hard the rig drifted into the opposite lane, but that didn't matter out here. There were times on this road when a person could take a nap on the center line. He glanced in his mirrors. There was a car way back behind him.

He sang:

I need some go-od things happenin' to me;
I need some go-od stuff, don' you see.
But go-od stuff don' happen to me. . . .

That's right! The old thought prowled through him once again like a starving wolf: Nothin' good ever happens to people like me. All the good stuff, all the *different* stuff, happened to other people. He'd never had a break to really do anything special. Probably never would. That sort of thing was for the Other People.

He sang:

All my luck's been bad luck

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Ever since I was a lad.
But I'm used to bad luck;
It's the only luck I've had.

Well, that wasn't too good, but he'd bet that even the Big Boys didn't write hit songs every time. He frowned; maybe they did. They were, after all, the Other People, the ones with all the good luck.

He sang:

I gotta be a fool to live like this.
A-rollin' on the road instead of in a big bed.
Gotta be a fool for lappin' up the leavin's.
If this is the good life, I'd rather be dead.

I could kill the old lady — the thought snickered through him once again like cold laughter barely overheard — that'd clean up half my act. She prob'ly wouldn't know the difference. She's half-dead now. He grinned and shook his head. What in seven or so Hells had he ever seen in that fat bitch? . . . And then he laughed: the same thing he'd seen in all of 'em. The only difference was, hers had been a little more accessible. A *lot* more accessible. He tightened his grip on the wheel: accessible for sure — to half the town, if his suspicions were right!

"Aw well, what the hell." He relaxed and lit another laced cigarette — her suspicions were right, too.

He sang:

I gotta be a fool for livin' with a fat bitch,
Spendin' my life gettin' laid in a Kenworth,
But not a fool for scratchin' my own itch,
An' truckin' out to—"

A new station wagon with flatlander plates passed, loaded with luggage and kids' faces. It cut in a little close and slowed right down.

"That's right!" he yelled. "You goddamn asshole! Make life miserable!"

He gave them the horns and stomped some juice to the diesel. The old rig bellowed and closed the distance.

"How d'ya like that bumper up your ass, tourist?"

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He had painted *ahtuM yrgnuH* on the front bumper so it could be read in a mirror. He liked that.

The station wagon pulled away.

"No guts, hah?"

He gave chase and sang:

Pushin' my rig and pushin' on a tourist,
Rammin' ol' Hungry up their ass.
See how they like it screwin' with a big rig.
See what they think of Rock Creek Pass!

He laughed and gave them the horns again.

"You can run, but you can't hide, boy! Rock Creek Pass is comin' up!"

Rock Creek Pass was a narrow, steep-sided, hard-downgrade little canyon with the road carved on one side like a scratch. It cut down from the plateau in a crooked slash, a mile of steep downhill, twisting turns with a twenty-five-mile-per-hour corner at the bottom. He'd once made that last bend at close to forty, tires moaning, teeth gritting in a grim grin, drifting far over the double line into the other lane. Lucky no one was coming. Lucky for them. *Hungry* would have eaten them alive.

The station wagon slowed at the big sign STEEP GRADE, CURVES. 35 MPH. He rolled *Hungry* close onto their tail again, wondering what it would be like to drive somebody right the hell off the road someday. He often wondered that. People were always pushing him — sometimes a man just wanted to push back. He backed off the pedal before he hit them, fed some air to the brakes, and dropped down a gear. And another gear. The old diesel moaned like a monster. He grinned. He was coming in to the top of the pass too fast, but that was O.K. So were they. He used more brakes to keep from running over them, but not enough to give them peace.

He sang:

Oh, Rock Creek Pass is a twisty ol' bitch,
With a river at the end and rocks at the bottom.
Rock Creek Pass ain't nothin' but a ditch
For scarin' tourists and. . . .

Bottom. . . . What was a rhyme for *bottom*? He'd have to start it over.

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Oh, Rock Creek is a—

His brake buzzer went off — the air-pressure gauge was way down.

"Well, she-it, *Hungry!* Be damned! You're just like my old lady — jump on my back when I ain't lookin'! Why're you doin' this to me?"

He jammed another gear lower, driving the tachometer into the red, juggling in his mind whether he should use the remaining air for brakes now or wait. Anyway, the automatics would lock up the trailer wheels when the air pressure dropped too far. It would grind some more flat spots on his tires, but what the hell.

"Let the good times roll, flatlander!" he sang.

The station wagon was only about six feet off his front bumper, swerving, brake lights flashing frantically. He swore, used more air for the brakes, and shifted another gear down. The engine howled in protest, driven far beyond the red line. The wagon skidded, the white faces of the children peered back at him with wide eyes.

"Get that tin can th'hell down the damn road or off it, boy! I'm gonna eat ya up!"

The wagon skidded again on the next curve, wide, and the big hungry bumper touched it, just tapped it on the rear fender. The wagon slid around in front of him with a long shriek of tires and a scream of metal as it tore across the corner of his bumper. It plunged straight through the old wooden guardrail and careened over the edge of the road. He didn't watch it fall.

Damn!

He supposed it was a shame about the kids. But why th'hell did people insist on bugging him? And right now he had another problem.

"Serves ya damn right! Get in *my* way! I got a goddamn runaway here!"

He watched the air-pressure gauge fall well into the red, and braced himself against the expected lurch of the automatic trailer brakes. It never came. He was doing just under fifty and picking up speed; he wasn't far enough down the transmission to gain enough braking power from the engine, and it was being pushed far past the red line.

"Well, blow up an' see if I care!" he yelled. "Damn old rig! Damn antique trailer prob'ly ain't got automatics worth a puke, anyway!"

He wheeled through two linked curves, using every inch of pavement from edge to edge, but in his mind saw only the one curve at the bottom, the stupid CURVE 25 MPH sign and the thin air beyond.

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"Aw man. . . ."

Jump?

He glanced at the pavement blurring past: better do it now! It ain't gettin' any slower in here! And jump far — the trailer wheels would make marmalade out of him. He opened the door, braced himself; he'd give anything to be somewhere else — " 'Bye, *Hungry!* Damn ya!" — and he jumped. . . .

HE HIT rolling, crashed through something, slammed against something flat and hard, and he stopped. But for the buzzing and the ringing in his head, it was very quiet.

He opened his eyes and stared around in dazed amazement.

The cabin was just as he imagined it.

It was more.

He was in a single room. Log walls. Peeled post-and-plank furniture. There was a big stone fireplace in the center of the rear wall, with a fire chuckling at the logs. There was an old cast-iron cookstove in one corner. A sink. There was a double bed neatly covered with a Navaho blanket. There was a big cushioned chair by the windows in the front. A rack of books. Oil lamps. Braided rugs. Rain on the roof. Outside, dark fir trees were misted into the distance. He had demolished a kitchen table and two chairs and fetched up against a wall.

"What the . . . ?"

He got to his feet, nursing an elbow and a limp, and went to the front windows. The hillside sloped steeply to a lake, steel gray in the rain. The clouded bulk of another mountain rose beyond.

"Well . . . I'll be damned. . . ." And then, louder: "Hello?"

There was no answer. Flames snapped at the logs. He investigated the two doors flanking the fireplace: one opened to a toilet — a flusher, too! — the other to an enclosed woodshed stacked high with firewood. There were hot coals in the cookstove.

"Anybody home?"

Nothing, only the hush of rain and the mutter of the fire. He shivered.

"Man . . . this is weird. . . ."

He added wood to the stove, snooped in the cupboards, found the makings and started coffee.

"Be damned. . . ."

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He stood for a moment in the middle of the cabin, frowning, then went again to the woodshed. It was rammed full to the roof. Barely enough room to swing a cat. He checked the bathroom, frown deepening to a scowl.

He carefully examined every inch of the cabin walls. He lifted two hanging Navaho rugs and peered behind them. He searched the floor.

There was no door to the outside. The windows didn't even open.

"Be *thoroughly* damned!"

It was two days later; he was sprawled on the unmade bed. A pile of dirty pots and pans and dishes clogged the sink. The rain still thrummed on the roof, never lessening, never increasing, always the same. He had fed the fires, eaten from the canned goods in the cupboard, gone to the toilet, slept and napped and watched the cold, steady rain. Some exciting two days! There wasn't even a TV. Not even a damn radio! He had tried reading some of the books, but they were stupid. *The Genetic Potential Inherent in the Human Mind. Eastern Experiences in Spatial Dislocation. Teleportation: Fact or Fantasy. Imaging: The Power of Faith.* It was all a lot of crap about psychology and stuff like that. There wasn't one damn thing there worth reading. He was frowning at the ceiling, when there was a dull *pof* like a big, underinflated balloon had burst, and . . . a woman was standing in front of the fireplace. She took a deep breath, sighed it out, and dropped her hands. And saw him.

She jumped a startled pace backward.

"Who are you?" she said, eyes wide.

"Who the hell are *you*?" He scowled at her. "And how did you do that?"

"Who *are* you?"

"I'm . . . me." He propped himself up on his elbows, smiling. She shook her head.

"How did you get here? This is mine!"

He laughed. "How th'hell did *you* get here? is what I want to know!"

She stamped her foot. "*How did you get here!*"

"I don't even know where th'hell *here* is, lady! Get off my back!"

They glared at each other for a moment. She made a vague, angry gesture.

"You just . . . appeared here?"

"No," he sneered. "I broke in through a window, and then, because I just

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happened to have another one with me, and nothin' else to do, I fixed it all up."

"Tell me!" It was nearly a shout.

"O.K. Don't get your shorts in an uproar." He shrugged. "Yeah. A couple of days ago. All of a sudden, I was here. It just . . . happened." He shrugged again.

She frowned at him and bit her lower lip. He thought that was kind of cute. He rolled off the bed to his feet. She took a step backward. He motioned to take in the cabin, the murky forest, the rain.

"So . . . where is this?"

She shook her head. "This is impossible," she said, as if to herself.

"Right! Tell me about it!"

"And you don't know how to leave?" she asked. He gave a sarcastic grunt.

"You think I'd be layin' around here on my dead ass if I knew how to get out? You got a secret door in the roof or something?"

She shook her head vaguely, still frowning. He scanned her, up and down, and decided things might be shaping up for the better. She wasn't bad-looking, no centerfold — no Betty Bowser, either — but she appeared to have all the required parts, and they seemed located in the right places. He put on his best grin, the boyish one they all liked, and took a step forward.

"So tell me, how did you do that when—?"

She pressed her fingers to her forehead, said, "I have to think about this," and *pof* — she was gone.

He walked through the spot where she had been, turned, and walked through it again.

"Well . . . be damned. . . ."

She was back an hour later — he had no way of telling time, but it felt like an hour. She crossed her arms and scowled at him lounged across the bed.

"You just suddenly appeared here, right?" she began.

"Just like that." He snapped his fingers, slipping on that friendly, youthful grin again.

"And nothing like this ever happened to you before?"

"Are you serious? This is—"

"What were you doing just before it happened?"

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"Bailing out of a runaway semi. I was on Rock Creek Pass, you see, an' the brakes—"

"You were in danger, then? Grave danger?"

"You got that damn straight!" he laughed. "Ol' *Hungry* was—"

"Never mind." She waved a hand and frowned thoughtfully at him for a short moment. "Do you have a place like this somewhere?"

"This cabin? Hell, no! But I always wanted somethin' like this." He gazed around. "I used to look up at the Big Bear Mountains and think about a hideout up there where I could spend some time, y'know? Just me an'—"

"You just *imagined* this place? Just like this?" She motioned around the cabin.

"Well . . . pretty much," he nodded. "Maybe not just exactly, but . . . yeah, a lot like this. It was just a place where I could be . . . let alone. You know? Nobody buggin' me all the time. Nobody pushin' an' shovin' on me. 'Cept. . . ." He scratched at his two-day stubble. "I think I'd have a door to the outside. Seems to me it'd be a handy way to get in and out."

She nodded. "And nothing like this has ever happened to you before? This suddenly going . . . someplace else?"

He laughed again, a short, sneering bark, and swung his feet off the bed. "Ya know, the funny thing is, I don't *feel* crazy. I feel like—"

"You've got it," she said quietly.

He blinked at her. "Got what?"

She paused. The small, studious frown regarded him.

"Got what?" he repeated.

"It's a. . . ." She spread her hands in a small, inquisitive gesture. "I'm not sure I know how to explain it. I've been studying it for some time now, I know it happens, I knew I wasn't the only one, but I don't completely understand it. It's like a. . . ." She shrugged. "Call it a talent, a special ability some people have. What do you know of metaphysics, parapsychology?"

He snickered. "Not a damn thing!"

"Well . . . O.K., let's just say some things can happen that are thought to be impossible."

"No shit, Sherlock!" He waved his arms to indicate the whole cabin. "Tell me about it!"

"And one of those things is, some people can . . . just go somewhere else when they want to. Just go!"

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"Uh-huh. . . ." He raised an eyebrow. "I saw that on a late movie once. This dude could—"

"And that's what you did. You were in danger; you wanted out; you wanted out so strongly you *expected* to get out."

"Damn true I wanted out! If you've ever seen—"

"So it's an imaging thing. You create a desired image, someplace required of the moment, a place you anticipate, and you simply go there. You came here to a place you imagined."

He stared at her for a moment, then laughed that short bark again.

"So I'm in my imagination now? Whoopee-doo!"

"No, it's real, this place. Entirely real. It's not imaginary."

"Ah-h, then I'm in *your* imagination." He grinned. "What else you got on your mind?"

"God no! This place is *real*, I said — it just doesn't exist in the normal reality plane. I don't know where it is. I created it."

"'Normal reality plane,'" he mimicked. "Now I know why them books are there. They sure as hell weren't a part of my imagination. So. . . ." He grinned his best grin again. "What do we do now?"

"Do what you want. I'm gone." She put her fingers to her forehead.

"Wait!" He reached for her.

Pof. She was gone.

He prowled the cabin like a captured cat.

An imaging thing, she said? What th'hell was that supposed to mean? He'd traveled to a place in his imagination? Sure!

That damn song flew through again:

On the wings of imagination, fly.
There's nowhere I can't go, good-bye;
There's nothing holding me I can't untie;
On the wings of imagination, fly.

SHE WAS back four days later. He was unshaven, dirty. The cabin was a mess, and it smelled. There was not a clean plate. He had been eating out of the cans. It was still raining, a dull drone on the roof.

"Now, don't go!" he said, holding out his hands as if to stop her. "Please don't go."

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"I just dropped by to see how you were doing." She looked around, wrinkling her nose. "Very poorly, it seems."

"Look, we can clean this up. No-o problem. I'm just gettin' a little spooky, y'know? I'm not used to this shit. It's . . . it's like jail. Only, in jail there's somebody to talk to. I'm going weird. . . ." He looked at her hopefully. "You got any booze stashed? Some dope? I'll clean up the place. Don' worry about it."

She shook her head. "It's not my cabin now — it's all yours. I have another place. Don't go looking for it. It's not the same."

"Hey, you can have your goddamn cabin, lady! All I want is the hell out of here!" He spread his arms wide. "How do I do it?"

"You just. . . ." She shrugged. "Imagine where you left, and concentrate on needing to go there. It's the same as how you came here. You just think of your expected destination, that you *must* go there, . . . and you go! No time has passed. You haven't been missed — you just pick it up at the moment you left."

He stared at her. "And I'm back where I was? Right at the same time?"

She nodded. "The very instant."

"Wonderful! I'd be diving into the pavement on the edge of Rock Creek Pass at somewhere around sixty miles an hour! Really great! Listen, I've seen guys who got chewed up by a truck! Try to imagine someone with their foot shoved—"

"That's the way it works. I can't help that."

"But. . . ." He scrubbed at his beard. "Look! You said you had another place now, another . . . whatever place you can go to. Right? Well, you came here." He spread his hands. "Like going sideways or something. Can't I do that? Imagine another place and go to it?"

"It doesn't work that way." She shook her head. "Do you know anything about computers?"

"Hell no! And what's that got to do with anything?"

"In some programs you cannot go directly to another program; you have to return to the system first. It's like that. It's as if you were in a program here, and you cannot go to another program without going back to the system first, and the system is what you would call 'real time.' And you have to return to real time at the moment you left it."

"This is crazy!"

She shrugged. "Crazy or not, it's the way it is."

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"You mean, all the time you spend here, that no time is passing back . . . wherever?"

"Right."

"Ah-*hah!*" He jabbed a finger at her. "Then how come time passes here when you're gone?" He grinned and nodded. "Gotcha!"

She shook her head. "I have no idea why it happens that way. It just does."

He frowned at her for a moment, scratching an armpit.

"But if I go back there. . . ." He lifted a hand in a helpless gesture. "The odds are that I'm a dead man."

"I'm sorry, but—"

"Sorry don't feed the bulldog, babe." He suddenly brightened. "Hey . . . if imagination does it, and I've got the talent, then I can change this place. Right? Make a town out there. Bring in some—"

"It won't work." She shook her head. "I've tried. Once it's established, it's a solid. It can't be changed. I had to carry in a lot of this stuff from outside, things I forgot. Firewood . . . the food."

"Look, sweetie!" He leveled a finger at her. "You gotta help! You know how! And I didn't ask to be here!"

"In a way, you had to ask — it's the only way you got here. It's a belief in the goal and, to some extent, the need to be elsewhere—"

"I don' need no more of *that* shit! I want *out!*"

"There's nothing I can do," she said, shrugging. "You have to do it yourself."

"Yeah?"

Damn bitch! She was just like everybody else — get him all jammed up, and then sing him the Ha-ha Blues. "You just brought it on yourself. So there!"

A tight grin twisted up the corner of his mouth.

"Well, I'll show you what I can do for myself — I can show you there *is* somethin' you can do! An' I'll bet you're pretty good at it. I ain't stayin' alone, honey!"

He lunged for her. She was quicker, and *poffed* away.

Three nights later — maybe four; he couldn't be sure — he was wakened by two *pofs*, one right after the other. He fumbled for the oil lamp and finally got it lighted. There was a carton of canned goods on the floor. There was a note.

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This is it! The last of the food. I am not helping you any more than this. Think about it.

No more food, and you will starve. There is no place to go if you break a window and leave the cabin. There is nothing out there but more of the same — that's the way I designed it. You will die in the rain of hypothermia, lost in the mountains.

Remember — this is real!

The only way you can get out — you have to need to get out and expect your destination! You can do it. Concentrate on the moment you left real time.

It's the only way.

You have the ability to go anywhere in your imagination from there. All you have to do is conceive that place in your mind and believe in it.

Good luck.

He stared at the note for a long time.

He swore a lot and burned her books and smashed up the cabin. There was not much food in the carton. Enough for a week. She did not return. Four days after the food was gone, he stood in front of the fireplace, clamped his eyes shut, gritted his teeth, and concentrated.

Go where you expect to go. Right! Maybe if he was quick enough. . . .

"Aw, dammit! Why me?"

The roar and the wind pummeled him, and he hit the pavement in a crashing whirl, a bright explosion of shock — and it was suddenly black and silent around him.

It was totally black and utterly silent.

He was on his back with his arms crossed on his chest. He moved his arms and bumped his elbows. He raised his head and bumped his forehead. He kicked his feet and bumped his toes. He could smell earth. He felt satin.

He screamed.

And the pavement clawed at him, erasing whole slabs of flesh —

And the doctors shook their heads sadly as they gazed down at him, and one said, "Poor devil. There's not much left of him." And another said, "He'll never walk, drive, sing, or screw again."

He shouted, "*No!*"

And he bounced again and ricocheted off the trailer frame —

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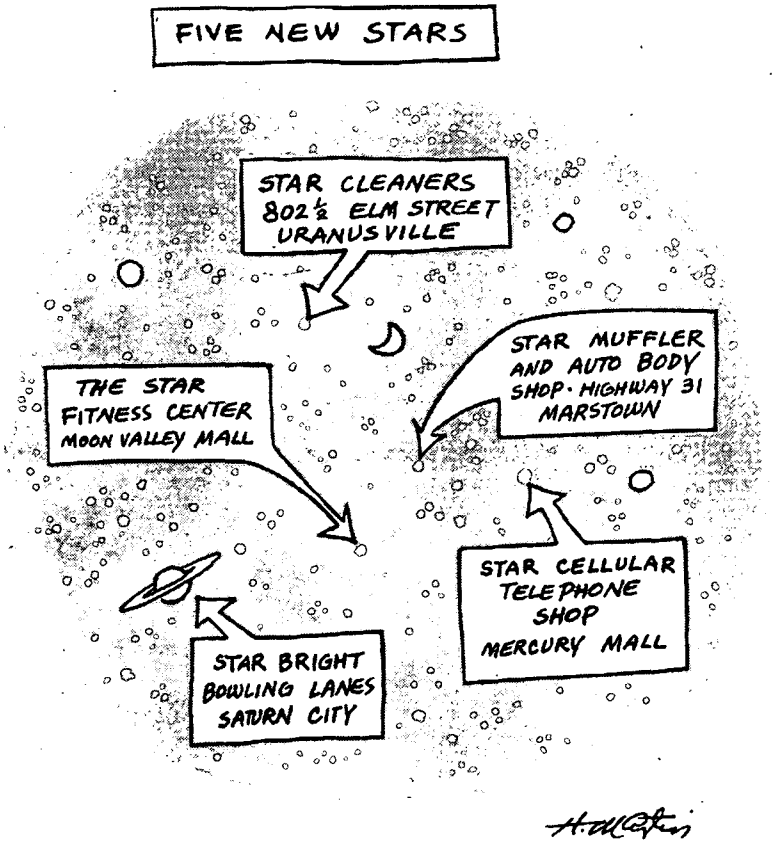
And the ugly old nurse wheeled him down the corridor of the home. He was almost getting used to having no arms, no legs, no—

No!

And he careened along the pavement—

And the Devil leered at him and nodded and purred, "Welcome. I've been waiting for some time now, you worthless sonuvabitch."

And he screamed one more time, and the trailer wheels ate him up.



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Cactus Frank has encountered his share of "low-down, trigger-happy skunks" in his day. Isn't it just his luck to come across one more! In "Bad Luck" Vance Aandahl ("In the Light of the Holy Herb", July 1988) presents us with a wry look at the old west and a sample of a different kind of frontier justice.

Bad Luck

By Vance Aandahl

THE MORNING SUN had barely risen above the saguaros, but already the turquoise pendant on Rosarita's necklace lay warm against her breast. She could feel the lace of her blouse wilting in the heat, clinging damply to her skin. She looked at Jesus and saw the sweat beading up on his forehead. Her eyes moved to the blotch of moist yellow scar tissue at the center of his face, and for the thousandth time she wondered.

How handsome would he be if he hadn't lost his nose? How ugly he is without it!

Jesus smiled at her, but the smile showed no emotion. His tongue darted across his lips like the tongue of a lizard. Then he leaned back against the horse rail in front of the cantina and squinted at the white disk of the sun.

It had been a long time since the last cantina, and Rosarita knew by the dazed emptiness in his eyes that Jesus was going to be *muy borracho* today. First he would smoke one of the thin brown marijuana cigars he'd

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bought in Sonora, and then he would walk with the slow, lazy grace of a puma into the cantina. His *pistoleros*, Ramon and Diego and Bolívar, would follow him with the same leisurely macho confidence, smiling at the jangle of their spurs in the early-morning stillness, and then Jesus would tell the man behind the bar to give them some bottles of mescal.

They would drink the fiery, colorless liquor and smoke marijuana and laugh, and after a while Jesus would draw his pistol and shoot the wick off a candle to demonstrate his marksmanship. He would boast about the time he ate a live scorpion. He would take out his knife and use the point to pick his teeth. Perhaps he would challenge his *pistoleros* to a game of cards. If so, he would win.

Sooner or later he would notice Rosarita and realize fully in his craziness how much he had tired of her, just as he had tired of the women he'd kept before her. Then he might shoot her on the spot, but it was more likely he'd give her to Ramon and Diego and Bolívar so they could have some pleasure with her first. From Hermosillo to Monterrey, Jesus Rodríguez was renowned for his generosity.

Rosarita turned her eyes away from that noseless copper mask of a face. Looking down the street, she realized he was staring not at the sun itself, but rather at a man riding into town with the sun behind him.

At first she could see only the silhouette of a horse and rider against the dazzling light. Then the shadow became a bushy-whiskered old gringo slouched atop a creamy palomino stallion.

Rosarita watched the stallion intently. It kicked up curtains of dust with its hooves as it carried the sleeping gringo past them. It flared its nostrils and shook its mane and rolled its eyes at Jesus and his *pistoleros*.

When Bolívar hawked a glob of brown phlegm into the dust, the palomino shied away and whinnied in alarm. Waking with a snort, the old gringo leaned forward and pressed his cheek against the horse's head to calm it.

"Easy thar," he said. "Easy thar, Gold Rush."

This gringo was truly ancient, with leathery, wrinkled skin and gnarled hands and no teeth at all, the scruffiest-looking ragbag bundle of loose ends Rosarita had ever seen. His whiskers stuck out in all directions. The stink of his body odor hit her in the face like an iron frying pan.

He stared impassively forward and guided his steed up to the old adobe church just beyond the cantina. Rosarita watched the skittish palomino prance for a moment, then settle down as the old gringo dismounted and

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flipped the reins around a fence post. Her eyes fixed on the stallion's supple flank. She lifted one hand to her throat and touched the collar of her necklace. Her fingers slid down to fondle the warm turquoise pendant. Then she spoke to Jesus.

"I want to pray."

"Do so. Pray." He flashed his reptilian smile. "That is a pretty palomino, yes?"

"Yes."

As she walked down the street toward the church, she knew from the look she'd seen in his eyes that Jesus Rodríguez was finally bored with her, that he didn't care she was going to sit alone in the house of God with a stinky old gringo, that afterward, when he killed her or gave her to his *pistoleros*, he would do so indifferently, feeling neither anger nor glee nor remorse.

Inside the church, it was dark and silent. A few candles flickered on the altar. The gringo sat on a bench six rows in front of her. Rosarita glanced at him only once before kneeling to pray.

She prayed to the Virgin for a miracle to save her from Jesus and his *pistoleros*. She would gladly go back to Barrenitos and help her father grow corn. She would buy a statue of the Virgin and light a candle at its feet every night for the rest of her life. She would renounce all worldly pleasures and give herself to God.

Rosarita tried to concentrate on her prayers, but the creamy palomino kept dancing into her mind. There was fire in its eyes and fire flashing from its hooves.

She couldn't push the stallion out of her thoughts. After a while it occurred to her that perhaps this image of a fiery dancing horse was not an annoyance, but rather an answer to the very prayers it seemed to interrupt. Had the Virgin already sent a miracle?

She looked again at the old gringo. She could smell his stench six rows away. His tattered yellow buckskins were caked with mud. His greasy gray hair hung back over his shoulders in a tangle of knots. He looked as though he hadn't had a woman for a long, long time. The Virgin's miracle bloomed in Rosarita's mind.

She left the church and walked back up the street. Jesus still lounged against the horse rail, but now he was smoking a marijuana cigar. His *pistoleros* were squatting around him in the dust, laughing and talking

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quietly, spitting at the rain barrel next to the cantina, waiting for him to toss them one of the cigars.

"Jesus. . . ."

She fingered the fringe on his vest. He exhaled a cloud of smoke and looked at her from the corners of his eyes without turning his head.

"That filthy gringo. . . ."

His eyes darkened. He drew deeply on the cigar and held the inhalation in his lungs, waiting for her to finish.

"He touched me. In the church."

She gazed up at him. His eyes looked like the eyes of a corpse. They went well with his nose scar. She had to turn her face away.

"Yes, he did this thing?"

His voice was soft. He sounded unconcerned, faintly amused. He took the fleshy part of her arm in his right hand and squeezed it. He was watching his *pistoleros*. And they were watching him.

"You're hurting my arm."

"Yes."

He lowered his head to kiss her cheek. His lips brushed her ear, and he whispered so softly she scarcely could hear him.

"I do not believe what you say. But I will kill the gringo because I do not want my *pistoleros* to think I am some *cabron* who lets gringos touch his woman. Afterward I will kill you, too. I will shoot you in the head. I do not want my *pistoleros* to think that I, Jesus Rodriguez, keep for my woman a *puta* who shows her legs to gringos in the house of God."

He reached up with his free hand to scratch idly at the wet, wrinkled scar where once there'd been a nose. Then he squeezed the flesh of her arm until she cried out and sank to her knees in the dust.

For a moment, Rosarita's head spun with pain. She opened her eyes in time to see her tormentor stroll past the palomino up the gravel path and through the door of the church.

Ramon and Diego and Bolivar rose up, swatting the dust off their chaps, and followed after him. Their boots scrunched in the gravel. They clustered together at the door of the church, peering in, listening for the report of their leader's gun, forgetting about his woman.

That's when Rosarita leaped to her feet and ran toward the palomino. Suddenly the reins were in her hands, and the hot, cracked leather of the gringo's saddle was cutting into her thighs, and she was flying down the

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street, galloping away, riding hard and fast on a fiery dancing steed, flying toward freedom on her gift from the Virgin, and all she could do was ride and ride and ride and hope the stallion proved fresher and stronger than the tough little mustangs Jesus and his *pistoleros* had stolen last month in Laredo.

CACTUS FRANK Gaffigan could hear his bones creak when he crouched down on his knees and bowed his head. It wasn't a posture he was accustomed to.

"Dear Gawd, I reckon Yew kin hear me in here ifn Yew kin hear me a tall. This is the fust time I ever been in a church, but I'm a damn sight oldern I useter be, 'n' I reckon I better git a few thangs offn muh chest 'fore I kick the bucket. Don't git me wrong. I hain't a sinner through 'n' through. I done plenty a good deeds. I been a damn good army scout, 'n' I kilt me a passel a heathen Induns at the Washita 'n' Sand Creek 'n' some other places whar the U.S. Cavalry done herself proud. I'll be damn to hell ifn I didn't shoot thet double-crossin', horse-thievin', coyote-balled sonofabitch Billy Chester right through the heart, 'n' thet thar was a bona fide favor to the whole human race ifn Yew ask me. But I done some sinnin', too. I done some gamblin' 'n' whorin' 'n' drinkin' 'n' fightin' 'n' such like in Kansas City 'n' also over thar in Nevada. I done some hard-mouth cursin' 'n' swearin' most evrywhar. I took indecent liberties with a savage Indun maiden up thar at the Washita thet I told Yew. I done some carousin' in Central City 'n' coldcocked two miners whut was mindin' thar own business. Wunst I even let Gold Rush git some saddle sores. Anyways, I'm gittin' too damn old fer all this 'n' now I aim to settle down ifn I kin ever larn enuff to know better. Dear Gawd, I hope Yew kin fergive an old red-eyed bastard with whiskey on his breath 'n' dirt between his toes, even though his past *is* blacker than a Comanche's arsehole. Amen."

When Cactus Frank lifted his head, the barrel of a pistol was pointing at his nose.

On the other end of the pistol was the ugliest-looking Mexican he'd ever seen, though not the ugliest man altogether, for he could recall a French beaver trapper who'd been homely to start with and then got his lips cut off by a drunk Paiute. This feller was missing his nose, which wasn't quite so bad. He had a flappy yellow scar that opened and closed like a gill when he breathed. His eyes looked fishy, too.

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"Whut the hell do *yew* want?"

"You violated my Rosarita, gringo." The man's mouth parted into a thin, humorless grin. "In the house of God."

"I hain't even seen yer damn Rosarita. 'N' yew better put thet damn gun back in yer holster 'fore I git mad 'n' rip the scar off yer face or somethin' even worse."

"This is no thing for the jokes, gringo. I think I will have to shoot you in the head now."

The man's grin widened to reveal a double row of perfect flashing white teeth.

Cactus Frank ducked under the pistol barrel and lunged at the smiling bastard's legs. The pistol exploded with a roar, and Frank felt the bullet rip a furrow through the top of his scalp like a fast-moving plowshare.

He grabbed the noseless sonofabitch by the knees and jerked him off his feet. The man's head flew back and hit the adobe floor with a crunch that sounded like a cantaloupe falling off the top of a Conestoga wagon.

He lay there stiff as a board. His eyes bulged out. His gun had skittered out of sight under one of the benches, and Frank could see how badly he wanted it back by the way he kept clenching and unclenching his right hand, sort of like a buzzard exercising its talons. Presently one of his eyes dilated, the other one closed, and he commenced to foam at the mouth.

"Yew low-down, trigger-happy skunk! Look whut yew done to muh haid!"

Cactus Frank gingerly massaged the trench in his scalp, then shook the loose bits of gore and hair off his fingers.

"Ifn this warn't a gawdamn church, I'd stomp yer guts out on the floor!"

"No, gringo, I do not think you would do such a thing."

Cactus Frank looked up and saw a figure silhouetted in the open doorway of the church. Whoever it was had a rifle aimed straight at him. Frank tensed up and shivered like a dog shitting peach pits.

Calm down, yuh old coward. Yew ain't dead yet. Standin' sideways like this, yer right arm's whar thet varmint cain't see it. Jist ease yer hand down a tad 'n'—

"No, no, *señor*, do not be such a fool."

A second voice. It came from inside a little booth that looked to Frank like it might be a privy.

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"Drop your gun belt, *mi amigo.*"

A third voice. This one came from behind a plaster statue of a pretty lady wearing a blue dress and holding a baby in her arms.

Cactus Frank stuck out his chin whiskers and growled.

"All right, yew spineless bushwhackers, I reckon yew got the drop on me."

His fingers shook as he fumbled with his belt buckle. One thing for sure, he was in no great hurry to unfasten it. He needed a few seconds to think.

He'd been trapped like this once before, in the Badlands back in '48, when he was still riding with old Hair That Swims in the Sun. One day the two of them had stopped in a ravine to dress and cure a pronghorn carcass. Around about noon they glanced up and saw the Kelly boys positioned at choice vantage points on both sides of the ravine.

Cactus Frank had swallowed hard and looked Hair That Swims in the Sun straight in the eye.

"Looks like we're gonter be kilt fer sure. 'Fore I die I jist want to say yer the best damn Indun I ever knowed."

Hair That Swims in the Sun looked straight back at Cactus Frank.

"The sun is too high in the sky for a fight. We should lie down and rest. After the Kelly boys waste all their ammo, we can rub them out."

This plan didn't make much sense to Cactus Frank. There wasn't so much as a tumbleweed to hide under. His yellow buckskins stood out against the black clay of the ravine almost as brightly as Hair That Swims in the Sun's blue calico breechcloth, a garment the latter was especially proud of, having stolen it off a Crow on the North Platte.

They'd be easy targets, but there wasn't anything better to do, so Cactus Frank just shrugged and lay down on the clay next to his companion and waited to see what would happen. After a minute or two, Hair That Swims in the Sun started snoring like a dry ripsaw. The sound must've set the Kelly boys off, because immediately thereafter all seven of them opened fire with their Winchesters.

For the next half hour, they sprayed bullets up one side of the ravine and down the other. They killed both riding ponies and the packhorse, too, ripped open the packsaddle and scattered its contents, ventilated the pot on the campfire so all of Frank's pronghorn stew drained out, and generally tore the place apart. But they didn't hit Cactus Frank or Hair

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That Swims in the Sun with a single shot.

Eventually the Kellys moseyed down to the campfire and wandered around scratching their heads and scraping at the clay with the toes of their boots, acting all nervous and confused. Hambone Kelly stood right next to Cactus Frank and looked down at him, but there wasn't any sign of recognition in his eyes.

After a while, Hambone and his brothers gathered around the campfire and hunkered down to talk it over. About the same time, Hair That Swims in the Sun woke up. Snorting and coughing like a mule, he staggered over to the dead packhorse to find his rusty old musket. Following suit, Cactus Frank stood up and pulled out his six-guns.

The Kelly boys kept up their palaver, but otherwise appeared to be blind and deaf. Maybe they were. It took Hair That Swims in the Sun a fair amount of time and a good deal of grunting and swearing to load his musket, but when he and Cactus Frank finally opened fire, it was all over in a few seconds. Between the three horses and the seven Kellys, there was enough dead meat in that ravine to feed every coyote in the Dakotas for the next month.

Afterward, Cactus Frank had looked Hair That Swims in the Sun straight in the eye.

"Yew damn fool Indun, how in tarnation did yew do thet trick?"

Hair That Swims in the Sun had scratched his crotch and yawned and looked straight back at Cactus Frank.

"There was no medicine in the white-eyes' guns, so we rubbed them out."

Now, thirty years later, standing in the dark interior of a shabby little border-town church with three murderous gunfighters pointing their weapons straight at him, Cactus Frank Gaffigan realized what he had to do. He'd irritated these boys by cracking their friend's head on the floor. The only reason the bastards hadn't shot him down already was to take him alive so they could enjoy a full measure of revenge by torturing him to death in some devilish slow way a decent man wouldn't be inclined to think of. To hell with that.

Up in the Badlands the trick had been to lie down and wait. Here his best bet was just the opposite.

Cactus Frank lifted his head and belched.

"I cain't seem to git this damn gun belt unbuckled," he announced.

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"Yew fellers reckon it might help ifn I took muh guns out fust? I'm an ignorant old coot, but the way I figger it, thet just might be the keerect course of action to commence upon. Whutch yew boys think?"

There was a moment of silence.

"*No comprendo*," came the voice from the booth. "Diego?"

"*No comprendo*, Ramon," answered the voice from the statue. "Bolívar?"

"*No comprendo*," said the man in the doorway.

"I'll *comprendo* yew, yew scum-suckin' desert skunks!"

Cactus Frank stopped fumbling with his belt buckle and reached for the six-gun on his right hip. It worked better than the other one, which had a nasty tendency to misfire and didn't shoot straight anyway. Besides, Frank never had been much of a marksman, and now that he was getting along in years, his eyesight had gone bleary and his hands trembled whenever he picked anything up, all of which led him to conclude he'd better use just one shooting iron at a time and try to hold it steady with both hands if he wanted half a chance of ever hitting a target.

As he pulled the old Colt out of its holster, the inside of the church crackled with gunfire. A passel of bullets zinged by his head from three different directions. One of them ripped off his right earlobe, and another grazed his left cheek.

Frank just clenched his gums and took his own sweet time getting a bead on the rifleman in the doorway. Under the circumstances, how fast he proceeded probably didn't matter much. He was counting on some of that medicine Hair That Swims in the Sun liked to jaw about.

After he finally had the sonofabitch lined up in his sights, he squinched shut his eyes and squeezed the trigger. The Colt discharged with a thunderous report. When he opened his eyes, the bastard had dropped his rifle and was staggering back out the doorway with both hands clawing at his chest.

"Bolívar! Are you hurt?" cried the voice from the booth.

"The gringo has killed him!" cried the voice from the statue.

"*Ay chihuahua!* I cannot see the gringo!"

"Nor I! Where is he hiding?"

Another volley of bullets whizzed past Cactus Frank's head. One of them took a wart off his chin. He'd suffered worse nicks shaving.

Hobbling about, he leveled his Colt at an altitude he deemed to be about waist-high, and pumped three shots into the booth, a tactic that

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elicited a high-pitched scream followed by the sound of something heavy slumping to the floor.

"Ramon! Answer me, Ramon!"

"Ramon's been plugged. Now it's yer turn."

"*Chinga su madre*, gringo!"

As Frank wheeled around, if a man of his age can be said to wheel, a new burst of bullets zipped by his head. One of them scorched his left eyebrow, but the others just ricocheted off the walls.

He trained his six-shooter on the statue and took a deep breath. The foregoing display of vigorous gunplay had kicked up a rich atmosphere. Frank found himself inhaling the personal history of a thousand boots, all the little particles of grit and grime that travel-weary souls had tramped into the church and deposited on its floor during their efforts at genuflection — red clay from the piney woods of northeast Texas, rich ocher topsoil from the Sacramento Valley, yellow sand from the bullring in Torreón, dried-up green mud from the banks of the Rio Grande, orange sawdust from lumber camps in Washington and Oregon, black coal dust from the mines around Pueblo, flecks of gray granite from the Rocky Mountains, fine brown powder from the cattle trails of Oklahoma and Kansas and Nebraska — all the multicolored and multitextured varieties of dirt from every region of the Old West, with a fair portion of pulverized rattlesnake scales and disintegrated buffalo chips thrown in for good measure.

Cactus Frank Gaffigan sensed the power of Mother Earth herself stirring in his lungs. He shed fifty years. He was young again, full of piss and vinegar. His innards glowed with a new warmth. A turquoise-blue light shone around his head. His body felt lighter than air, and for a moment he almost came floating up out of his boots.

What better time to pull the trigger?

Bullet number five hit the statue square in the gut, shattering the pretty lady and her baby into a zillion smithereens of plaster. Bullet number six hit the varmint hiding behind her skirts. He wasn't as tall as she was, so the slug tore a hole through his throat instead of his gut. He collapsed on the floor and lay there sputtering and burbling while the blood pulsed out of his neck.

"Good riddance to bad rubbish," muttered Cactus Frank.

He retreated to the rear of the church to cauterize his flesh wounds

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by heating the tip of his revolver barrel over one of the flickery candles sitting on the altar. He'd just finished burning a scab onto his lobeless ear and was trying to figure out how to get at the nick on his chin without singeing his whiskers, when he heard a wheeze and turned around to see who was sneaking up behind him.

There stood the one who'd called himself Jesus. His head lay cocked over at a sharp angle like a hanged man's head. One eye was still dilated, the other still closed. He still foamed at the mouth. Something that looked goopier than blood was dripping off his hair. But somehow the crazy sonofabitch had managed to get up on his feet and draw a curved skinning knife out of his pants.

"Now . . . you . . . will . . . die . . . gringo. . . ."

He lurched forward and took a drunken swing at Cactus Frank's face. The knife point slashed through the air and sliced a fleshy protuberance off the tip of Frank's nose.

Frank leaned back and grabbed the crucifix from behind the altar. He'd never seen one before, and didn't have time now for a careful study, but he could tell right away it was a hefty item, roughly the size, shape, and weight of a miner's pickax. He swung it overhead with all the strength in his sinewy old arms, and the crossbar whacked his adversary smack-dab on the yellow scar where his nose used to be.

The force of the blow put the finishing touches on Jesus Rodríguez's broken neck. He crumpled to the floor, then lay still.

Cactus Frank tossed the crucifix aside and strode down the aisle. He could finish cauterizing his wound later. Right now he needed a breath of fresh air. Outside, he stared dumbfounded at the fence post where he'd left his horse.

"Whar's Gold Rush?"

Outraged, he searched up and down the street, but there was no sign of the creamy palomino stallion. All he found was a broken turquoise necklace lying in the dust. He picked it up and threw it down again.

"One of them no-good thievin' skunks stole muh horse whilst I was fightin' with the others in the gawdamn church!"

He stomped his boot down hard and worked the heel around, grinding the turquoise necklace into the dirt.

"By Gawd," he complained. "In the whole damn state of Texas, I must be the critter whut has the worst luck!"

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F&SF Office Hit by July Storm

On July 10, a vicious storm, possibly a tornado, devastated the Village of Cornwall, Connecticut, where this magazine's offices are located.

In a period of about 15 minutes, thousands of trees were uprooted or sheared off and scores of homes were damaged. The Cathedral Pines, a local landmark that was one of the largest and oldest pine stands in New England, was completely destroyed.

During the weeks following the storm, Cornwall was like a logging camp, with the relentless howl of chain saws, rumble of heavy equipment and smoke from the constant fires to burn debris.

Through all this, the reaction has been one of sadness, of course, but also of cheerful efficiency and remarkable hard work. Power was restored within four days and water soon after. Town officials, state and town highway crews, and, most of all, friends and neighbors, have been magnificent, including the crew that maneuvered a huge maple out of our 3rd floor office, where it had smashed a window and strewn glass over our photocopier.

The one unfortunate exception to the determined response was the Southern New England Telephone Company. Phone service was not restored until July 25, and we received no reasonable explanation for the two-week outage. So this is to apologize and explain to any of you who tried to reach us by phone during July.

We are thankful that no lives were lost, the damage to this office was minor, and all issues will be published on time.

— E. L. F.

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SCIENCE

ISAAC ASIMOV

MASSING THE SUN

WHEN I was young, I read a great deal of poetry. Partly, that was because poetry was pushed at me in school. (I don't know if it is any more, but I certainly hope it is.) And partly it was because I didn't know any better. My immigrant parents, as I have frequently explained, did not know enough about English literature to guide my reading, so I read *everything*. I even read stuff like poetry, which children were supposed to hate, because no one told me I was supposed to hate it.

In any case, I remember much of the poetry I read in those days because I have always had trouble forgetting anything (except things that are vital, like the instructions my dear wife, Janet, gives me, in her hopeless attempt to make me live forever). And some of the poetry has persisted in coloring my view of the world even today.

For instance, there is a poem by Francis William Bourdillon (I won't lie to you — I had to look up his name) of which the first verse goes as follows:

The night has a thousand eyes
And the day but one;
Yet the light of the bright world dies
With the dying sun.

Nothing I have read, whether in literature or in science, has given me so unfailing an appreciation of the importance of the Sun as those four lines.

As a result, I was not the least surprised to find, a little later in my youth, that the first monotheist we know of in ordinary secular history, who was the Egyptian pharaoh, Akhenaton (reigning 1372-1362 B.C.), chose the Sun as the one supreme God. (Good choice, Akhenaton, I thought. Very logical.)

So I will continue with my discussion of the Sun. In the previous

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essay, I posed the question: How far is the Sun?" The answer turned out to be 149.6 million kilometers (92.96 million miles), and at that distance, the Sun turns out to be 1,390,000 kilometers (865,000 miles) in diameter.

Let us now ask a second question, which I will put in a deliberately naive form. "How heavy is the Sun?"

The conventional view of western religion was, to begin with, that the Sun was merely a container of light.

Light itself was the first thing mentioned in the Bible as having been created, for on the first day, "God said, Let there be light: and there was light." (Genesis 1:3).

To begin with, we might assume, light simply permeated the Universe, but (still on the first day) God separated light from dark to make both day and night.

It was not till the fourth day that the light was collected into the various heavenly objects, of which incomparably the brightest is the Sun. The Moon is a very distant second, and the stars are just little sparkles. "And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also." (Genesis 1:16).

There existed light on Earth, too, independent of the heavenly bodies. There were brief, occasional lightning strokes that could start forest fires. And, eventually, there were fires that could be brought into existance by human beings, yielding light and warmth.

The study of Earthly sources of light made an important point very clear. It seemed obvious that light had no weight. It was immaterial.

From this, an important conclusion could be drawn. If the Sun were nothing more than a ball of light, it, too, must be immaterial and have no weight. If so, it wouldn't matter if it were very far away and, therefore, very huge. No matter how large it was in sheer size, it would still be a weightless bit of less-than-fluff, and it might be argued that it would then have to circle the heavy Earth.

A second basic observation of light on Earth is that it cannot exist for long unless the fire that emits it is constantly fed fuel. Any source of light dies out as soon as the wood or oil is consumed.

The Sun, on the other hand, does not go out. It has emitted light, unchanged, all through human history and shows no sign even today of diminishing or fading, let alone going out. Nor is there any sign that, in the process, the Sun is consuming fuel.

The conclusion can be drawn

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from this that earthly light has certain basic differences from heavenly light. Earthly light is a temporary phenomenon based on fuel; heavenly light is eternal and requires no fuel. This is an important example of the seeming fact that the laws of nature on Earth are different from those in heaven.

The Greek philosopher Aristotle (384-322 B.C.) reasoned this out in considerable detail. In general, Earthly objects are imperfect and time-bound; decay and corruption are inevitable. Heavenly objects, on the other hand, are eternal and incorruptible; in short, perfect. Then, too, Earthly objects, if left to themselves, do not move; or, if they move, do so by falling downward or rising upward. Earth and water tend to sink; air and fire to rise (these being the four basic substances or "elements" that make up the Earth in the Greek view). Heavenly objects, on the other hand, always move and, in doing so, neither fall nor rise, but progress in grand, unchanging circles about the Earth.

Since that is so, heavenly bodies can not be made up out of earth, water, air or fire, but out of some different substance altogether, that Aristotle called "aither" and we call "aether" or "ether." It is from the Greek word for "blazing," since the heavenly objects glow with an eternal light, whereas Earthly objects are dull and dark, except for occasional bits of human-made fire that are very imperfect when compared to the divine fire of the ether.

Rocks and heavy objects, generally, fall unless supported. We all know that. Hold a rock out and let go and, instantly, of its own accord, it falls. But why?

To answer that, Aristotle suggested that every object had a natural place in the Universe, and, it it were outside that natural place, it made every effort to return to it, provided it were not constrained. As long as you hold the rock in mid-air it is constrained to remain there, but you feel its weight as it struggles, so to speak, to plunge toward the center of the Universe, which is the natural place for solid substances. And if you let go, it instantly moves toward that center; in other words, it falls.

It seemed to Aristotle that the heaviness of an object was the measure of the intensity of its longing to be in its natural place. Therefore, a heavy object would naturally fall more quickly than a light object. A rock would fall more rapidly than a leaf, and a leaf would fall more rapidly than a small, downy feather.

You can, if you wish, easily satisfy yourself that Aristotle was wrong in this view by a simple experiment —

Take two identical sheets of

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paper and drop them simultaneously. They will both fall rather slowly and at equal speeds as they do so. Now take one of those sheets of paper and crumple it into as small a ball as you can manage. Its weight has not changed in the process, so now you are ready to drop two objects, one thin and flat, and one crumpled into a small compact structure, but both of which are the same weight.

Drop them and, behold, the crumpled paper falls considerably faster than the flat paper of equal weight.

Why? Because materials falling in our atmosphere have to push air molecules out of the way as they fall, and that consumes some of the energy of falling and makes them drop more slowly. If an object is quite heavy, this slowing through air resistance is negligible, but it becomes greater if the object is light. It becomes greater still if the object is both light and presents a large surface to the air.

To us, in hindsight, all this seems obvious, but it wasn't till the time of the Italian scientist Galileo (1564-1642), nineteen centuries after Aristotle, that the old Greek's notions of falling bodies were actually put to the test.

In the 1590's, Galileo did two things that were important. First, he used objects that were so heavy that air resistance was negligible. Secondly, he let the objects roll down an inclined plane, which diluted and slowed the natural tendency to fall so that he could more easily observe and measure the speed with which they moved.

His experiments showed one all important fact — that objects, regardless of their weight, all fell at the same rate. Legend has it that Galileo demonstrated this by simultaneously dropping two heavy balls, one ten times heavier than the other, from the top of the Leaning Tower of Pisa, and having them hit the ground — thunk — simultaneously. It is almost certain that he didn't do this, but his experiments with balls rolling down an inclined plane did the job just as well, if less spectacularly. They served to kill Aristotelian physics.

(In a vacuum, where air resistance is absent, it would follow that *all* objects, however light and however large the surface, would fall at the same rate. In a vacuum, a feather would fall as rapidly as a cannonball. This has been tested, and it is so.)

About three-quarters of a century later, the English scientist Isaac Newton (1642-1727) took the findings of Galileo and others in connection with moving objects, and worked out three assumptions

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called "Three Laws of Motion" that satisfactorily explained all the varieties of motion encountered on Earth.

The Second Law of Motion states that if a force is exerted on a body, that body will undergo an acceleration. It will speed up, or slow down, or change the direction of travel, depending on the direction in which the force is exerted. What's more, the same degree of force will produce a smaller acceleration in a heavier object than in a lighter one. (To see that this is so, first kick a football and then kick a cannonball in just the same way, and see what happens.)

Newton defined an innate property of matter which he called "mass." The greater the amount of mass a particular object has, the less it is accelerated by a given force. On the surface of the Earth, the mass of an object is proportional to its weight, but the two are not identical. Weight changes with position in the Universe, but mass does not — something we needn't go into at this point.

Newton's laws of motion have held for all ordinary conditions ever since, and they have proved a completely satisfactory way of dealing with motion. (Under extreme conditions, Einstein's generalization of these laws is more useful, but we won't go into that at this point, either.)

The replacement of Aristotle's ideas of motion by those of Galileo and Newton did not, in themselves, necessarily alter the proposition that the laws of nature are different on Earth and in the heavens. In whatever manner you explain the way in which bodies fall on Earth, they do fall; and the heavenly bodies do not fall, but move in circles.

They seem to move in circles around the Earth, but even if heliocentric views, as described in the previous essay, are accepted, and if some heavenly bodies move around the Sun, they still move in circles and don't fall.

Now what? Well, let's take a different tack.

The ancient Greeks thought the planets moved in circles, not because the planetary motions indicated that, but because a circle was viewed as the simplest and neatest curved figure; and, therefore, as the perfect curved figure. Surely nothing less than perfection would do for the heavenly bodies.

Since the planetary motions did not move as they would have if their orbits had been perfect circles, the Greeks supposed that they travelled in combinations of circles and built up structures of circles upon circles that grew more and more complicated. They insisted on forcing the actual motion of the

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planets into their concept of what was neat and pretty. (They called it "saving the appearances.")

When Copernicus, as described in the previous essay, decided that the planets, other than the Moon, were actually moving about the Sun, he felt that they still travelled in combinations of circles. He couldn't get rid of that particular Greek idea.

The one who broke the spell was a German astronomer, Johann Kepler (1571-1630). He had a set of observations of Mars that had been recorded by a Danish astronomer, Tycho Brahe (1546-1601), which were the best ever made up to that time. Kepler tried to match those positions to a circular orbit, but could not make that work.

Desperately, he tried other types of curves and found that the ellipse (a slightly flattened circle) fit the orbit quite exactly. He therefore worked out the "Three Laws of Planetary Motion", the first two in 1609, and the third in 1619.

The first law states that a planetary orbit was an ellipse. An ellipse has a center, as a circle has, but an ellipse also has two foci, one on either side of the center, and the Sun was located at one of the foci of the planetary orbital ellipse, not at the center.

The second law describes how the speed of motion of a given planet changed with changing distance from the Sun. (With the Sun at one focus of the planetary ellipse, the distance between the Sun and the planet changes and the planet progresses along its orbit.)

The third law describes how the length of time different planets take to move about the Sun is related to their distances from the Sun.

Kepler was the first to describe the Solar system essentially as it is, and his description holds today as tightly as it did in his own time (allowing for some refinements due to Newton, and, later, to Einstein). It is unlikely that the picture of the Solar system will ever have to be changed substantially from that given us by Kepler.

The trouble is, though, that the Three Laws of Planetary Motion are quite different from the Three Laws of (Earthly) Motion, so that it might *still* seem, even as late as the mid-1600's, that the laws of nature were different on Earth and in the sky.

In 1666, however, Newton had left London, which was being decimated by the plague, and retired to his mother's farm, where one evening he happened to watch an apple fall from a tree (and no! it did *not* hit him on the head) at a time when the Moon was shining in the sky.

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He wondered why the apple fell and the Moon did not, and it occurred to him that the Moon *was* falling, but that it was also moving sideways and the combination of the two motions kept it in orbit about the Earth. From the nature of the orbit, one could calculate how far it fell toward Earth in one second, and it was falling much more slowly than the apple was. Of course, the Moon was much farther from the Earth than the apple was and perhaps the attractive power of the Earth decreased with distance.

Since the intensity of light was known to decrease as the square of the distance, the intensity of Earth's attractive pull might decrease in the same way. Newton did the calculations and ended with a rate of fall for the Moon of only seven-eighths of what it really was. That seemed to kill his theory, and he abandoned it in disappointment.

Why did his calculations fail? For one thing, he was using a figure for the radius of the Earth that was substantially smaller than the truth. That affected his calculations. It was also true that different parts of the Earth might attract the Moon at slightly different distances from slightly different directions, and Newton wasn't sure he knew how to allow for that.

Then one day, in 1684, English scientists were discussing the possibility that planetary motions were controlled by the Sun's attraction, and Newton's friend Edmund Halley (1656-1742) asked him what path a planet would take about the Sun, if the attractive power of the Sun decreased as the square of the distance.

"An ellipse," said Newton.

"How do you know?" said Halley.

"Why, I once calculated it," said Newton.

Halley grew fearfully excited, and when he found that Newton had come out with the wrong figure, he insisted that he try it again. By now, Newton had invented the calculus, which gave him just the mathematical tool he needed for his calculations. What's more, the French astronomer Jean Picard (1620-1682) had, in 1671, published a new estimate of the radius of the Earth that was more accurate than the one Newton had used in 1666.

When Newton went back to his calculations, he could see that they were now coming out *right*, and he had to stop and recover before the excitement of it gave him a stroke.

Halley then drove Newton on mercilessly to write a book describing his laws of motion and all that could be deduced from them. Halley read proof and undertook the expense of publication (he was rich). The book, the short title of which is *Principia Mathematica*, was pub-

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lished in 1687 and, by general agreement, is the greatest work of science ever presented to the world.

Newton worked out the Law of Gravitation from his Three Laws of Motion. He went on to work out the Three Laws of Planetary Motion from his Law of Gravitation.

Mind you, Newton did not just propose a simple law of gravitation. Even primitive man knew that all heavy objects fell to Earth. Everyone knew that Earth was the source of an attractive pull. It took no Newton to tell the world that.

What Newton proposed was the Law of *Universal* Gravitation. Every particle in the Universe that possessed mass attracted every other particle in the Universe that possessed mass, and did so with a force proportional to the product of the two masses and inversely proportional to the square of the distance between them.

That made it possible to determine the relative masses of different objects in the Universe. For instance, the Moon doesn't simply revolve about the Earth. By Newton's law, both Earth and Moon revolve about a common center of gravity. This center of gravity is on a line connecting the centers of the Earth and the Moon, and its distance from the Earth's center and the Moon's center is inversely proportional to the masses of each. The location of the center of gravity can be located because, as the Earth goes around it, the stars seem to wobble slightly in the course of a month.

The center of gravity of the Earth-Moon system is (at an average) 4728 kilometers (2938 miles) from the center of the Earth. This is actually 1650 kilometers (1025 miles) under the Earth's surface, so it's not a bad approximation to say that the Moon is orbiting the Earth.

The center of gravity is 81.3 times as close to the center of the Earth, as it is to the center of the Moon. This means that th Earth's mass is 81.3 times that of the Moon's mass. We can't use the position of the center of gravity to tell us the absolute mass of either body, but we can get the relative masses of the two, and that's plenty.

And what about the mass of the Sun?

We know how rapidly the Moon goes around the Earth. If the Moon were farther away from Earth, it would have to travel over a longer orbit, and it would also move more slowly since Earth's gravitational whip would be feebler. We could take both effects into account and calculate how fast the Moon would be moving and how long it would take it to circle the center of gravity of the Earth-Moon system at any distance; at a distance, for instance, equal to that separating

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the Sun from the Earth.

If the Moon were at 149.6 million kilometers from Earth, and if there were no other heavenly bodies in the vicinity to interfere, it would be moving very slowly indeed, much more slowly than the Earth moves about the Sun at the very same distance.

Why does the Earth move much more quickly under the Sun's influence than the Moon would under Earth's at the same distance? Obviously, because the Sun's gravitational pull is much stronger than the Earth's.

And why is the Sun's pull much stronger than the Earth's? Because the Sun has more mass. From Newton's Law of Universal Gravitation, and from the known orbital speeds of the Moon and the Earth, together with the known distance of the Moon from the Earth and of the Earth from the Sun, we can calculate the Sun's mass relative to the Earth's.

It turns out that the Sun is no immaterial expanse of light. The Sun is a material body with a mass equal to 330,000 times that of the Earth and, at any given distance, the Sun's gravitational pull is 330,000 times the intensity of Earth's gravitational pull.

In other words, once the consequences of Newton's Law of Universal Gravitation were understood, there remained no longer any conceivable reason (other than blind and stubborn faith in nonsense) to suppose that the Sun is circling the Earth.

In 1798, the English scientist Henry Cavendish (1731-1810) measured the force of gravitation between two metal balls in his laboratory and from that calculated the actual mass of the Earth (see THE MAN WHO MASSED THE EARTH, F & SF, September 1969). From that we can get the absolute masses of the Moon and the Earth, but these are such huge figures we can't visualize them. If we stick to relative masses and suppose that the Moon's mass is 1, we have:

Mass of Moon = 1

Mass of Earth = 81

Mass of Sun = 27,000,000.

Is there anything else we can tell about the Sun right now? Yes, we know that the Sun has a diameter equal to 109 times that of the Earth (see the previous essay) and therefore has a volume equal to 109 X 109 X 109, or 1,295,000 times that of the earth)

If, then, the Sun were made of precisely the same sort of material that the Earth is made of, it should have a mass equal to 1,295,000 times that of the Earth, but it doesn't.

Since the Sun's mass is only 330,000 times that of the Earth, it is

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made of (on the whole) lighter material than the Earth is made of. The density of the Sun (the number of kilograms per cubic meter, or the number of pounds per cubic foot) is 333,000/1,295,000 or only 1/4 that of Earth.

Now we can come to a grand conclusion. We have shown that the Moon and Sun have mass as Earth has. By similar methods we can show that every material heavenly body has mass, even distant stars and galaxies. (Light and a few other substances are immaterial and don't have mass in the ordinary sense of the word, but we can ignore that.)

Again, since all the objects with mass in the Universe seem to obey the Law of Universal Gravitation in accordance with Newton's equations (barring extreme cases where we must use Einstein's generalization), it would appear that all bodies everywhere in the Universe, whether on Earth or in the most distant galaxy, obey the same laws of nature — *all* the laws of nature, we might guess, and not just the Law of Universal Gravitation.

This remains an assumption, of course, because we can't test the Universe directly at great distance, but we have not yet discovered anything in the three centuries since Newton's great book was published that would lead us to doubt, in any serious way, the universality of the laws of nature as determined on Earth.

And yet, even so, there can remain questions that are not answered by Newton's equations. For instance —

The Sun has mass, but Sun-stuff is not exactly Earth-stuff since Sun-stuff has only a quarter of the density of Earth-stuff.

Is this because the Sun is so much hotter than Earth? After all, density does tend to go down as the temperature rises.

Or is it because the Sun is composed of the same material that Earth is, but in different proportions? Some materials on Earth are considerably less dense than other materials, and maybe the Sun is made up mostly of the less dense materials we know on Earth.

Or can it be that the Sun is made up of substances utterly different from those making up the Earth. Even with all their obedience to the laws of nature, it may be that heavenly objects are fundamentally different in chemical composition than Earth is. Perhaps *every* heavenly object has its own composition, with no two alike.

And if that is so — or not so —how can we ever tell? We can't go to the Sun, for instance, and sample its material and analyze it.

In fact, the French philosopher Auguste Comte (1798-1857) stated,

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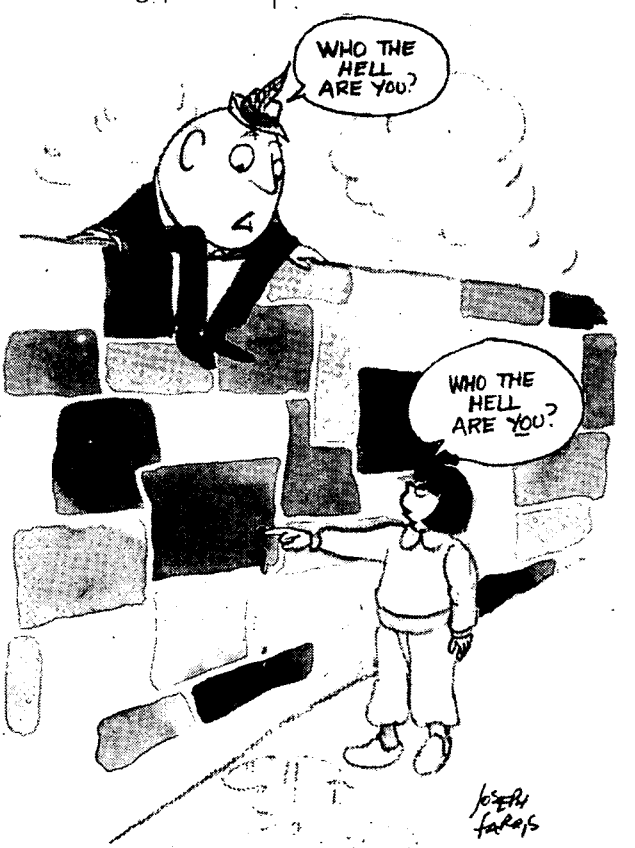
in 1835, that the chemical constitution of the stars was an example of the kind of information science would be eternally incapable of attaining.

Sometimes, though, these flat statements of "Impossible!" are dangerous (even though I myself make them often enough). Comte died just two years too soon to witness scientists learning how to obtain the kind of information he thought science would be eternally incapable of attaining.

Next month, then, we'll consider how that was done, and we'll find out what the Sun is made of.



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Ben Bova writes that his new story is about art, and the power of ideas. It's also about a cargo of worms, a space sculptress named Elverda Apacheta, and it features the enormously appealing Sam Gunn, a spacer/entrepeneur who last appeared in "Diamond Sam" (November 1988).

A CAN OF WORMS

By Ben Bova

REGAL WAS THE ONLY possible word for her. The reporter stared in unabashed awe. Elverda Apacheta was lean, long-legged, stately, splendid, dignified, intelligent — regal. The word kept bobbing to the surface of the reporter's mind.

Not that the sculptress was magnificently clad: she wore only a frayed jumpsuit of faded gray. It was her bearing, her demeanor, and above all her face that proclaimed her nobility. It was an aristocratic face, the face of an Incan queen, copper red, a study in sculptured planes of cheek and brow and strong Andean nose. Her almond-shaped, deeply dark eyes missed nothing. They seemed to penetrate to the soul even while they sparkled with what appeared to be a delight in the world. The sculptress's thick black hair was speckled with gray, as much the result of exposure to cosmic radiation as age, thought the reporter. It was neatly bound in a silver mesh. Her only other adornment was a heavy silver bracelet

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that probably concealed a communicator.

"Yes, I knew Sam well," she replied to the reporter's lame opening question, in a throaty, low voice. She spoke English, in deference to the reporter, but there was the unmistakable memory of the high Andes in her accent. "Very well indeed."

The reporter wore her customary coral-colored parasilk coveralls with the stylized sunburst of the Solar Network logo emblazoned above her left breast pocket and the miniature recorder on her belt. She was surprised at her worshipful reaction to Elverda Apacheta. The woman was renowned as not only the first space sculptress, but the best. Yet the reporter had interviewed plenty of other personalities who were very famous, or powerful, or notorious, or talented. None of them had been this breathtaking. Did this Incan queen affect everyone this way? Had she affected Sam Gunn this way?

The two women were sitting in a faculty lounge of the Interplanetary Space University. It was a small, quiet room tastefully decorated with carpeting of warm earth colors that covered not only the floor but the walls as well. The ideal place for recording an interview. Must have cost a moderate-sized fortune to bring this stuff up here, the reporter thought.

This particular lounge was in the section of the ISU habitat that swung only fast enough to produce a simulation of the gentle gravity of the Moon: a compromise between Elverda Apacheta's desire for extremely low gravity and the reporter's recurrent bouts of nausea at zero gee. Even so, the reporter avoided looking out the lounge's solitary window, where the magnificent blue globe of Earth swam past every few minutes and then was replaced by the black emptiness of space.

The sculptress reclined regally on a high-backed armchair of soft, nubby pseudowool, looking every inch a monarch who could dispense justice or mercy with the slightest arch of an eyebrow. The reporter felt drab sitting on the sofa at her right, despite the fact that her coveralls were crisply new while Apacheta's were worn almost to holes.

"There are rumors that you and Sam were. . . ." She hesitated half a heartbeat. ". . . well, lovers."

The sculptress smiled sadly. "I loved Sam madly. For a while I thought perhaps he loved me, too. But now, after all these years" — strangely, the smile grew more tender — "I'm not so sure."

* * *

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We were all much younger then — said Elverda Apacheta — and our passions were much closer to the surface. I could become enraged at the slightest excuse; the smallest problem could infuriate me.

You must remember, of course, that I had packed off to the asteroid where I had been living alone for almost three years. Even my supply shipments came in unmanned spacecraft. So it was a big surprise when a transfer ship showed up and settled into a rendezvous orbit a few hundred meters off my asteroid.

I thought of it as *my* asteroid. Nobody could own it, according to international law. But there were no restrictions against carving on it. Aten 1994 EA was the name the astronomers had given it, which meant that it was the 105th asteroid discovered in the year 1994 among the Aten group. The astronomers are very efficient in their naming, of course, but not romantic at all.

I called my asteroid *Quipu-Camayoc,* which means "The Rememberer." And I was determined to carve the history of my people upon it. The idea was not merely romantic, it was absolutely poetic. After all, we have lived in the mountains since before time was reckoned. Even the name of my people, my very own name — Apacheta — means a group of magical stones. Now my people were leaving their ancient mountain villages, scattering down to the cities, losing their tribal identities in the new world of factory jobs and electronic pleasures. Someone had to mark their story in a way that could be remembered forever.

When I first heard of the asteroid, back at the university at La Paz, I knew it was my destiny. The very name the astronomers had given it signified my own name: Aten 1994 EA — Elverda Apacheta. It was a sign. I am not superstitious, of course, and ordinarily I do not believe in signs and omens. But I knew I was destined to carve the history of my people on Aten 1994 EA, and turn it into the memory of a vanishing race.

Quipu-Camayoc was a large stone streaked with metals, a mountain floating in space, nearly one full kilometer long. Its orbit was slightly closer to the Sun than Earth's orbit, so, nearly once a year, it came close enough to Earth for a reasonably easy flight to reach it in something like a week; that is when I usually got my supplies.

As I said, I was surprised when a transfer ship came into view instead of the usual unmanned spacecraft. I was even more surprised when someone jetted over to my quarters without even asking permission to come aboard.

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I lived in my workshop, a small pod that contained all my sculpting equipment and the life-support systems, as well as my personal gear — clothing, sleeping hammock, things like that.

"Who is approaching?" I called on the communicator. In its screen I centered a magnified picture of the approaching stranger. I could see nothing, of course, except a white space suit topped with a bubble helmet. The figure was enwrapped by the jet unit, somewhat like a man sitting in a chair that had no legs.

"Sam Gunn is my name. I've got your supplies aboard my ship."

Suddenly I realized I was naked. Living alone, I seldom bothered with clothing. My first reaction was anger.

"Then send the supplies across and go on your way. I have no time for visitors."

He laughed. That surprised me. He said, "This isn't just a social call, lady. I'm supposed to hand you a legal document. It's got to be done in person. You know how lawyers are."

"No, I don't know. And I don't want to." But I hurriedly pushed over to my clothes locker and rummaged in it for a decent set of coveralls.

I realize now that what I should have done was to lock the access hatch and not allow him to enter. That would have delayed the legal action against me. But it would only have delayed it, not prevented it altogether. Perhaps allowing Sam to enter my quarters, to enter my life, was the best course after all.

By the time I heard the pumps cycling in the air lock, I was pulling a pair of old blue denim coveralls over my shoulders. The inner hatch cracked open as I zippered them up to the collar.

Sam coasted through the hatch, his helmet already removed and floating inside the air lock. He was small, not quite 170 centimeters, although to his last breath he claimed to be 177. Which is nonsense. I myself was a good three centimeters taller than he.

It would be difficult to capture his face in a sculpture. His features were too mobile for stone or even clay to do him justice. There was something slightly irregular about Sam's face: one side did not quite match the other. It made him look just the tiniest bit off-center, askew. It fitted his personality very well.

His eyes could be blue or gray or even green, depending on the lighting. His mouth was extremely mobile: he had a thousand different smiles, and

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he was almost always talking, never silent. Short-cropped light brown hair, with a tinge of red in it. Round face, a touch unbalanced toward the left. A slightly crooked snub nose; it looked as if it had been broken, perhaps more than once. A sprinkling of freckles. I thought of the *Norte Americano* character from literature, Huckleberry Finn, grown into boyish manhood.

He hung there, framed in the open hatch, his booted feet dangling several centimeters from the grillwork of the floor. He was staring at me.

Suddenly I felt enormously embarrassed. My quarters were a shambles. Nothing but a cramped compartment filled with junk. Equipment and computer consoles scattered everywhere, connecting wires looping in the zero gravity like jungle vines. My hammock was a twisted disaster area; the entire little cabin was filled with the flotsam of a hermit who had not seen another human being in three years. I was bone-thin, I knew. Like a skeleton. I could not even begin to remember where I had left my last lipstick. And my hair must have looked wild, floating uncombed.

"God, you're *beautiful!*" said Sam, in an awed whisper. "A goddess made of copper."

Immediately I distrusted him.

"You have a legal paper for me?" I asked, as coldly as I could. I had no idea of what it was; perhaps something from the university in La Paz about the new grant I had applied for.

"Uh, yeah. . . ." Sam seemed to be half-dazed, unfocused. "I, uh, didn't bring it with me. It's back aboard my ship."

"You told me you had it with you."

"No," he said, recovering slightly. "I said I was supposed to hand it to you personally. It's back on the ship."

I glared at him. How dare he invade my privacy like this? Interrupt my work? My art?

He did not wilt. In fact, Sam brightened. "Why don't you come over and have a meal with me? With us, I mean. Me and my crew."

I absolutely refused. Yet somehow, several hours later, I was on my way to his transfer ship, riding on the rear saddle of a two-person jet scooter. I had bathed and dressed while Sam had returned to his ship for the scooter. I had even found a bright golden yellow scarf to tie around the waist of my best green coveralls, and a matching scarf to tie down my hair. Inside my space suit, I could smell the perfume I had doused myself with.

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It is surprising how you can find things you thought you had lost, when the motivation is right.

What was my motivation? Not to accept some legal document, certainly. Sam's sudden presence made it painfully clear to me that I had been terribly alone for such a long time. I had not minded the loneliness at all — not until he punctuated it as he did. My first reaction had been anger, of course. But how could I remain angry with a man who was so obviously taken with my so-called beauty?

My asteroid was in shadow as we sailed toward his ship, so we could not see the figures I had already carved upon it. It bulked over us, blotting out the Sun, like some huge black pitted mountain, looming dark and somehow menacing. Sam kept up a steady chatter on the suit-to-suit radio. He was asking me questions about what I was doing and how my work was going, but somehow he did all the talking.

His ship was called *Adam Smith*, a name that meant nothing to me. It looked like an ordinary transfer vehicle, squat and ungainly, with spidery legs sticking out and bulbous glassy projections that housed the command and living modules. But as we approached it, I saw that Sam's ship was large. Very large. I had never seen one so big.

"The only one like it in the solar system, so far," he acknowledged cheerfully. "I'm having three more built. Gonna corner the cargo business."

He rattled on, casually informing me that he was the major owner of the orbital tourist facility, the Earth View Hotel.

"Every room has a view of Earth. It's gorgeous."

"Yes, I imagine it is."

"Great place for a honeymoon," Sam proclaimed. "Or even just a weekend. You haven't lived until you've made love in zero gee."

I went silent and remained so the rest of the short journey to his ship. I had no intention of responding to sexual overtures, no matter how subtle. Or blatant.

Dinner was rather pleasant. Five of us crowded into the narrow wardroom that doubled as the mess. Cooking in zero gravity is no great trick, but presenting the food in a way that is appetizing to the eye without running the risk of its floating off the plate at the first touch of a fork — that calls for art. Sam managed the trick by using plates with clear plastic covers that hinged back neatly. Veal piccata with spaghetti, no less. The wine, of course, was served in squeeze bulbs.

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There were three crew persons on *Adam Smith*. The only woman, the communications engineer, was married to the propulsion engineer. She was a heavyset blonde of about thirty who had allowed herself to gain much too much weight. Michelangelo would have loved her, with her thick torso and powerful limbs, but by present standards she was no great beauty. But then, her husband, equally fair-haired, was also of ponderous dimensions.

It was a proven fact that people who spent a great deal of time in low gravity either allowed themselves to become tremendously fat, or thinned down to little more than skin and bones, as I had. The physiologists have scientific terms for this: I am an *agravitic ectomorph*, so I am told. The two oversized engineers were *agravitic endomorphs*. Sam, of course, was neither. He was Sam — irrepressibly unique.

I found myself instinctively disliking both of the bloated engineers, until I thought of the globulous little Venus figures that prehistoric peoples had carved out of hand-sized round rocks. Then they did not seem so bad.

The third crewman was the payload specialist, a lanky, dark, taciturn biologist. Young and rather handsome, in a smoldering, sullen way. Although he was slim, he had some meat on his bones. I found that this was his first space mission, and he was determined to make it his last.

"What is your cargo?" I asked.

Before the biologist could reply, Sam answered, "Worms."

I nearly dropped my fork. Suddenly the spaghetti I had laboriously wound around it seemed to be squirming, alive.

"Worms?" I echoed.

Nodding brightly, Sam said, "You know the Moralist Sect that's building an O'Neill habitat?"

I shook my head, realizing I had been badly out of touch with the rest of the human race for three years.

"Religious group," Sam explained. "They decided Earth is too sinful for them, so they're building their own paradise, a self-contained, self-sufficient artificial world in a Sun-circling orbit, just like your asteroid."

"And they want worms?" I asked.

"For the soil," said the biologist.

Before I could ask another question, Sam said, "They're bringing in megatons of soil from the Moon, mostly for radiation shielding. Don't

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want to be conceiving two-head Moralists, y'know. So they figured that as long as they've got so much dirt, they might as well use it for farming, too."

"But lunar soil is sterile," the biologist said.

"Right. It's got plenty of nutrients in it, all those chemicals that crops need. But no earthworms, no beetles, none of the bugs and slugs and other slimy little things that make the soil *alive*."

"And they need that?"

"Yes. Sure do, if they're gonna farm that lunar soil. Otherwise they've gotta go to hydroponics, and that's against their religion."

I turned from Sam to the biologist. He nodded to confirm what Sam had said. The two engineers were ignoring our conversation, busily shoveling food into their mouths.

"Not many cargo haulers capable of taking ten tons of worms and their friends halfway around the Earth's orbit," Sam said proudly. "I got the contract from the Moralists with hardly any competition at all. Damned profitable, too, as long as the worms stay healthy."

"They are," the biologist assured him.

"This is the first of six flights for them," said Sam, returning his attention to his veal and pasta. "All worms."

I felt myself smiling. "Do you always make deliveries in person?"

"Oh no." Twirling the spaghetti on his fork beneath the plastic cover of his dish. "I just figured that since this is the first flight, I ought to come along and see it through. I'm a qualified astronaut, you know."

"I didn't know."

"Yeah. Besides, it lets me get away from the hotel and the office. My buddy Omar can run the hotel while I'm gone. Hell, he runs it while I'm there!"

"Then what do you do?"

He grinned at me. "I look for new business opportunities. I seek out new worlds, new civilizations. I boldly go where no man has gone before."

The biologist muttered from behind a forkful of veal. "He chases women." From his dead-serious face, I could not tell if he was making a joke or not.

"And you deliver ten tons of worms," I said.

"Right. And the mail."

"Ah. My letter."

"It's in my cabin, up by the bridge."

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I refused to smile back at him. If he thought he was going to get me into his cabin, and his zero-gee hammock, he was terribly mistaken. So I told myself. I had taken only a couple of sips of the wine; after three years of living like a hermit, I was careful not to make a fool of myself. I wanted to be invulnerable, untouchable.

Actually, Sam was an almost perfect gentleman. After dinner we coasted from the wardroom along a low-ceilinged corridor that opened into the command module. I had to bend over slightly to get through the corridor, but Sam sailed along blithely, talking every millimeter of the way about worms, Moralists and their artificial heaven, habitats expanding throughout the inner solar system, and how he was going to make billions from hauling specialized cargoes.

His cabin was nothing more than a tiny booth with a sleeping hammock fastened to one wall, actually just an alcove built into the command module. Through the windows of the bridge, I could see my asteroid, hovering out there with the Sun starting to rise above it. Sam ducked into his cubbyhole without making any suggestive remarks at all, and came out a moment later with a heavy, stiff, expensive-looking white envelope.

It bore my name and several smudged stamps that I presume had been affixed to it by various post offices on its way to me. In the corner was the name and address of a legal firm: Skinner, Flaymen, Killum, and Score, of Des Moines, Iowa, U.S.A., Earth.

Wondering why they couldn't have sent their message electronically, like everyone else, I struggled to open the envelope.

"Let me," Sam said, taking one corner of it with two fingers and deftly slitting it with the minuscule blade of the tiniest pocketknife I had ever seen.

I pulled out a single sheet of heavy white parchment, so stiff that its edges could slice flesh.

It was a letter for me. It began, "Please be advised. . . ."

For several minutes I puzzled over the legal wording while Sam went over to the control console and busied himself checking out the instruments. Slowly the letter's meaning became clear to me. My breath gagged in my throat. A searing, blazing knot of pain sprang up in my chest.

"What's wrong?" Sam was at my side in a shot. "Cripes, you look like you're gonna explode! You're red as a fire engine."

I was so furious I could hardly see. I handed the letter to Sam and

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managed to choke out, "Does this mean what I think it means?"

He scanned the letter quickly, then read it more slowly, his eyes going wider with each word of it.

"Jesus Christ on a crutch!" he shouted. "They're throwing you off the asteroid!"

I could not believe what the letter said. We both read it half a dozen times more. The words did not change their meaning. I wanted to scream. I wanted to kill. The vision came to my mind of lawyers stripped naked and staked out over a slow fire, screaming for mercy while I laughed and burned their letter in the fire that was roasting their flesh. I looked around the command module wildly, looking for something to throw, something to break, anything to release the terrible, terrible fury that was building inside me.

"Those sons of bitches!" Sam raged. "Those slimy do-gooder bastards!"

The lawyers represented the Moralist Sect of The One True God, Inc. The letter was to inform me that the Moralists had notified the International Astronautical Council that they intended to capture asteroid Aten 1994 EA and use it as structural material for the habitat they were building.

"They can't do that!" Sam bellowed, bouncing around the bridge like a weightless Ping-Pong ball. "You were here first. They can't throw you out like a landlord evicting a tenant!"

"The white man has taken the Indian's lands whenever he chose to," I said, seething.

He mistook my deathly quiet tone for acquiescence. "Not anymore! Not today. This is one white man who's on the side of the redskins."

He was so upset, so outraged, so vociferous that I felt my own fury cooling, calming. It was as if Sam were doing all my screaming for me.

"This letter," I hissed, "says I have no choice."

"Hell, no, you won't go," Sam snapped. "I've got lawyers, too, lady. Nobody's going to push you around."

"Why should you want to involve yourself?"

He shot me an unfathomable glance. "I'm involved. I'm involved. You think I can sit back and watch those Moralist bastards steal your rock? I *hate* it when some big outfit tries to muscle us little guys."

It occurred to me that at least part of Sam's motivation might have been to worm his way into my affection. And my pants. He would act

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the brave protector of the weak, and I would act the grateful weakling who would reward him with my somewhat emaciated body. From the few words that the taciturn biologist had said at dinner, and from my observation of Sam's own behavior, it seemed to me that he had a Casanova complex: he wanted every woman he saw.

And yet — his outrage seemed genuine enough. And yet — the instant he saw me, he said I was beautiful, even though clearly I was not.

"Don't you worry," Sam said, his round little face grim and determined. "I'm on your side, and we'll figure out some way to stick this letter up those lawyer's large intestines."

"But the Moralist Sect is very powerful."

"So what? You've got me, kiddo. All those poor praying sonsofbitches have on their side is God."

I was still angry and confused as Sam and I climbed back into our space suits and he returned me to my pod on my — no, *the* asteroid. I felt a burning fury blazing within me, bitter rage at the idea of stealing my asteroid away from me. They were going to break it up and use it as raw material for their habitat!

Normally I would have been screaming and throwing things, but I sat quietly on the two-person scooter as we left the air lock of Sam's ship. He was babbling away with a mixture of bravado, jokes, obscene descriptions of lawyers in general and Moralists in particular. He made me laugh. Despite my fears and fury, Sam made me laugh and realize that there was nothing I could do about the Moralists and their lawyers at the moment, so why should I tie myself into knots over them? Besides, I had a more immediate problem to deal with.

Sam. Was he going to attempt to seduce me once we were back at my quarters? And if he did, what would my reaction be? I was shocked at my uncertainty. Three years is a long time, but even to think of allowing this man. . . .

"You got a lawyer?" His voice came through the earphones of my helmet.

"No. I suppose the university will represent me. Legally, I'm their employee."

"Maybe, but you. . . ." His voice choked off. I heard him take in his breath, like a man who has just seen something that overpowered him.

"Is that *it?*" Sam asked in an awed voice.

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The Sun was shining obliquely on The Rememberer, so that the figures I had carved were shown in high relief.

"It's not finished," I said. "It's hardly even begun."

Sam swerved the little scooter so that we moved slowly along the length of the carvings. I saw all the problems, the places that had to be fixed, improved. The feathered serpent needed more work. The Mama Kilya, the Moon Mother, was especially rough. But I had to place her there because the vein of silver in the asteroid came up to the surface only at that point, and I needed to use the silver as the tears of the Moon.

Even while I picked out the weak places in my figures, I could hear Sam's breathing over the suit radio. I feared he would hyperventilate. For nearly half an hour, we cruised slowly back and forth across the face of the asteroid, then spiraled around to the other side.

The one enormous advantage of space sculpture, of course, is the absence of gravity. There is no need for a base, a stand, a vertical line. Sculpture can be truly three-dimensional in space, as it was meant to be. I had intended to carve the entire surface of the asteroid.

"It's fantastic," Sam said at last, his voice strangely muted. "It's the most beautiful thing I've ever seen. I'll be hung by the *cojones* before I'll let those double-talking bastards steal this away from you!"

At that moment I began to love Sam Gunn.

TRUE TO his word, Sam got his own lawyers to represent me. A few days after *Adam Smith* disappeared from my view, on its way to the Moralists' construction site, I was contacted by the firm of Whalen and Krill, of Port Canaveral, Florida, U.S.A., Earth.

The woman who appeared on my comm screen was a junior partner in the firm. I was not important enough for either of the two senior men. Still, that was better than my university had done: their legal counsel had told me bleakly that I had no recourse at all, and I should abandon my asteroid forthwith.

"We've got the IAC arbitration board to agree to take up the dispute," said Ms. Mindy Rourke, Esq. She seemed very young to me to be a lawyer. I was especially fascinated by her long hair falling luxuriantly past her shoulders. She could wear it like that only on Earth. In a low-gee environment, it would have spread out like a chestnut-colored explosion.

"I'll have my day in court, then."

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"You won't have to be physically present," Ms. Rourke said. Then she added, with a doubtful little frown, "But I'm afraid the board usually bases its decisions on the maximum good for the maximum number of people. The Moralists will house ten thousand people in their habitat. All you've got is you."

What she meant was that Art counted for nothing as compared to the utilitarian purpose of grinding up my asteroid, smelting it, and using its metal as structural materials for an artificial world to house ten thousand religious zealots who want to leave Earth forever.

Sam stayed in touch with me electronically, and hardly a day passed that he did not call and spend an hour or more chatting with me. Our talk was never romantic, but each call made me love him more. He spoke endlessly about his childhood in Nebraska, or was it Baltimore? Sometimes his childhood tales were based in the rainy hillsides of the Pacific Northwest. Either he had moved around ceaselessly as a child, or he was amalgamating talks from many other people and adopting them as his own. I never tried to find out. If Sam thought of the stories as his own childhood, what did it matter?

Gradually, as the weeks slipped into months, I found myself speaking about my own younger years. The half-deserted mountain village where I had been born. The struggle to get my father to allow me to go to the university instead of marrying, "as a decent girl should." The professor who broke my heart. The pain that sent me fleeing to this asteroid and the life of a hermit.

Sam cheered me up. He made me smile, even laugh. He provided me with a blow-by-blow description of his own activities as an entrepreneur. Not content with owning and operating the Earth View Hotel *and* running a freight-hauling business that ranged from low Earth orbit to the Moon and out as far as the new habitats being built in Sun-circling orbits, Sam was also getting involved in building tourists facilities at Moonbase as well.

"And then there's this advertising scheme that these two guys have come up with. It's kinda crazy, but it might work."

The "scheme" was to paint enormous advertisement pictures in the ionosphere, some fifty miles or so above the Earth's surface, using electron guns to make the gases up at that altitude glow like the aurora borealis. The men that Sam was speaking with claimed that they could make actual

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pictures that could be seen across whole continents.

"When the conditions are right," Sam added. "Like, it's gotta be either at dusk or at dawn, when the sky looks dark from the ground but there's still sunlight up at the right altitude."

"Not many people are up at dawn," I said.

It took almost a full minute between my statement and his answer, I was so distant from his base in Earth orbit.

"Yeah," he responded at last. "So it's gotta be around dusk." Sam grinned lopsidedly. "Can you imagine the reaction from the environmentalists if we start painting advertisements across the sky?"

"They'll fade away within a few minutes, won't they?"

"The seconds stretched, and then he answered, "Yeah, sure. But can you picture the look on their faces? They'll *hate* it! Might be worth doing just to give 'em ulcers!"

All during those long weeks and months, I could hardly work up the energy to continue my carving. What good would it be? The whole asteroid was going to be taken away from me, ground into powder, destroyed forever. I knew what the International Astronautical Council's arbitrators would say: Moralists, ten thousand; Art, one.

For days on end, I would stand at my console, idly fingering the keyboard, sketching in the next set of figures that the lasers would etch into the stone. In the display screen, the figures would look weak, misshapen, distorted. Sometimes they glared at me accusingly, as if *I* were the one killing them.

Time and again I ended up sketching Sam's funny, freckled, dear face.

I found reasons to pull on my space suit and go outside. Check the lasers. Adjust the power settings. Recalibrate the feedback sensors. Anything but actual work. I ran my gloved fingers across the faces of the *hauqui*, the guardian spirits I had carved into this metallic stone. It was a bitter joke. The *hauqui* needed someone to guard them from evil.

Instead of working, I cried. All my anger and hate was leaching away in the acid of frustration and waiting, waiting, endless months of waiting for the inevitable doom.

And then Sam showed up again, just as unexpectedly as the first time.

My asteroid, with me attached to it, had moved far along on its yearly orbit. I could see Earth only through the low-power telescope that I had brought with me, back in those first days when I had fooled myself into

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believing I would spend my free time in space studying the stars. Even in the telescope, the world of my birth was nothing more than a blurry, fat crescent, shining royal blue.

My first inkling that Sam was approaching was a message I found typed on my comm screen. I had been outside, uselessly fingering my carvings. When I came in and took off my helmet I saw on the screen:

> HAVE NO FEAR, SAM IS HERE. WILL RENDEZVOUS IN ONE HOUR.

My eyes flicked to the digital clock reading. He would be here in a matter of minutes! At least this time I was wearing clothes, but still I looked a mess.

By the time his transport was hovering in a matching orbit and the pumps in my air locks were chugging, I was decently dressed in a set of beige coveralls he had not seen before, my hair was combed and neatly netted, and I had applied a bit of makeup to my face. My expression in the mirror had surprised me: smiling, nearly simpering, almost as giddy as a schoolgirl. Even my heart was skipping along merrily.

Sam came in, his helmet already off. I propelled myself over to him and kissed him warmly on the lips. He reacted in a typical Sam Gunn way. He gave a whoop and made three weightless cartwheels, literally heels over head, with me gripped tightly in his arms.

For all his exuberance and energy, Sam was a gentle, thoughtful lover. Hours later, as we floated side by side in my darkened quarters, the sweat glistening on our bare skins, he murmured:

"I never thought I could feel so . . . so. . . ."

Trying to supply the missing word, I suggested, "So much in love?"

He made a little nod. In our weightlessness, the action made him drift slightly away from me. I caught him in my arms, though, and pulled us back together.

"I love you, Sam," I whispered, as though it were a secret. "I love you."

He gave a long sigh. I thought it was contentment, happiness even.

"Listen," he said, "you've got to come over to the ship. Those two nut cases who want to paint the ionosphere are on their way to the Moralists' habitat."

"What does that have to do with. . . ."

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"You gotta meet them," he insisted. Untangling from me, he began to round up his clothes, floating like weightless ghosts in the shadows. "You know what those Moralist hypocrites are going to call their habitat, once it's finished? Eden! How's that for chutzpah?"

He had to explain the Yiddish word to me. Eden. The Moralists wanted to create their own paradise in space. Well, maybe they would, although I doubted that it would be paradise for anyone who deviated in the slightest from their stern views of right and wrong.

We showered, which in zero gee is an intricate, intimate procedure. Sam washed me thoroughly, lovingly, using the washcloth to tenderly push the soapy water that clung to my skin over every inch of my body.

"The perfect woman," he muttered. "A dirty mind in a clean body."

Finally we dried off, dressed, and headed out to Sam's ship. But first he maneuvered the little scooter along the length of my asteroid.

"Doesn't seem to be much more done than the last time I was here," he said, almost accusingly.

I was glad we were in the space suits and he could not see me blush. I remained silent.

As we moved away from The Rememberer, Sam told me, "The lawyers aren't having much luck with the arbitration board." In the earphones of my helmet, his voice sounded suddenly tired, almost defeated.

"I didn't think they would."

"The board's gonna hand down its decision in two weeks. If they decide against you, there's no appeal."

"And they will decide against me, won't they?"

He tried to make his voice brighter. "Well, the lawyers are doing their damnedest. But if trickery and deceit won't work, maybe I can bribe a couple of board members."

"Don't you dare! You'll go to jail."

He laughed.

As we came up to Sam's transport ship, I saw its name stenciled in huge letters beneath the insect-eye canopy of the command module: *Klaus Heiss*.

"Important economist," Sam answered my question. "Back a hundred years or so. The first man to suggest free enterprise in space."

"I thought that writers had suggested that long before spaceflight even began," I said as we approached the ship's air lock.

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He was speaking about their idea of painting the ionosphere with advertisements.

Sam's voice sounded mildly impatient in my earphones. "Writers are one thing. Heiss went out and raised money, got things started. For real."

Klaus Heiss was fitted out more handsomely than *Adam Smith*, even though it seemed no larger. The dining lounge was more luxurious, and apparently the crew ate elsewhere. There were four of us for dinner: Sam and myself, and the two "nut cases," as he called them.

Morton McGuire and T. Kagashima did not seem insane to me. Perhaps naive. Certainly enthusiastic.

"It's the greatest idea since the invention of writing!" McGuire blurted as we sat around the dining lounge table.

He was speaking about their idea of painting the ionosphere with advertisements.

McGuire was a huge mass of flesh, bulging in every direction, straining the metal snaps of his bilious green coveralls. He looked like a balloon that has been overfilled to the point of bursting. He proudly told me that he was known as "Mountain McGuire," from his days as a college football player. He had gone from college into advertising, gaining poundage every passing day. Living on Earth, he could not be classified as an agravitic endomorph. He was simply fat. Extremely so.

"I'm just a growing boy," he said happily as he jammed fistfuls of food into his mouth.

The other one, Kagashima, was almost as lean as I myself. Quiet, too, although his Oriental eyes frequently flashed with suppressed mirth. No one seemed to know what Kagashima's first name was. When I asked what the *T* stood for, he merely smiled enigmatically and said, "Just call me Kagashima; it will be easier for you." He spoke English very well — no great surprise, since he was born and raised in Denver, U.S.A.

Kagashima was an electronics wizard. McGuire an advertising executive. Between them they had cooked up the idea of using electron guns to to create glowing pictures in the ionosphere.

"Just imagine it," McGuire beamed, his chubby hands held up as if framing a camera shot. "It's twilight. The first stars are coming out. You

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look up, and — POW! — there's a huge red-and-white sign covering the sky from horizon to horizon: *Drink Coke!*"

I wanted to vomit.

But Sam encouraged him. "Like skywriting, when planes used to spell out words with smoke."

"Real skywriting!" McGuire enthused.

Kagashima smiled and nodded.

"Is it legal," I asked, "to write advertising slogans across the sky?"

McGuire snapped a ferocious look at me. "There's no laws against it! The lawyers can't take the damned *sky* away from us, for God's sake! The sky belongs to everyone."

I glanced at Sam. "The lawyers seem to be taking my asteroid away from me."

His smile was odd, like the smile a hunter would have on his face as he saw his prey coming into range of his gun.

"Possession is nine-tenths of the law," Sam muttered.

"Who possesses the sky?" Kagashima asked, with that Oriental ambiguity that passes for wisdom.

"We do!" snapped McGuire.

Sam merely smiled like a cat eyeing a fat canary.

At Sam's insistence, I spent the night hours aboard his ship. His quarters were much more luxurious than mine, and since practically all space operations kept Greenwich Mean Time, there was no problem of differing clocks.

His cabin was much more than an alcove off the command module. It was small, but a real compartment, with a zipper hammock for sleeping and a completely enclosed shower stall that jetted water from all directions. We used the shower, but not the hammock. We finally fell asleep locked weightlessly in each other's embrace, and woke up when we gently bumped into the compartment's bulkhead, many hours later.

"We've got to talk," Sam said as we were dressing.

I smiled at him. "That means you talk and I listen, no?"

"No. Well, maybe I do most of the talking. But you've got to make some decisions, kiddo."

"Decisions? About what?"

"About your asteroid. And the next few years of your life."

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He did not say that I had to make a decision about us. I barely noticed that fact at the time. I should have paid more attention.

Glancing at the digital clock set into the bulkhead next to his hammock, Sam told me, "In about half an hour, I'm going to be conversing with the Right Reverend Virtue T. Dabney, spiritual leader of the Moralist Sect. Their chief, their head honcho, sitteth at the right hand of You-Know-Who. The Boss."

"The head of the Moralists?"

"Right."

"He's calling you? About my asteroid?"

Sam's grin was full of teeth. "Nope. About his worms. We're carrying another load of 'em out to his Eden on this trip."

"Why would the head of the Moralists call you about worms?"

"Seems that the worms have become afflicted by a rare and strange disease," Sam said, the grin turning delightfully evil, "and the hauling contract the Moralists signed with me contains a clause that says I'm not responsible for their health."

I was hanging in midair, literally and mentally. "What's that got to do with me?"

Drifting over so close that our noses were practically touching, Sam asked in a whisper, "Would you be willing to paint the world's first advertisement on the ionosphere? An advertisement for the Moralists?"

"Never!"

"Even if it means that they'll let you keep the asteroid?"

Ah, the emotions that surged through my heart! I felt anger, and hope, and disgust, even fear. But mostly anger.

"Sam, that's despicable! It's a desecration! To turn the sky into an advertising poster. . . ."

Sam was grinning, but he was serious about this. "Now don't climb up on a high horse, kid. . . ."

"And do it for the Moralists?" My temper was boiling over now. "The people who want to take my asteroid away from me and destroy the memory of my own people? You want me to help *them*?"

"O.K., O.K.! Don't pop your cork over it," Sam said, taking me gently by the wrist. "I'm just asking you to think about it. You don't have to do it if you don't want to."

Completely bewildered, I allowed Sam to lead me up to the ship's

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command module. The same two husband-and-wife engineers were there at their consoles, just as blond and even more bloated than they had been the last time I had seen them, it seemed to me. They greeted me with smiles of recognition.

Sam asked them to leave, and they wafted out through the main hatch like a pair of hot-air balloons. On their way to the galley, no doubt.

We drifted over to the comm console. No one needs chairs in zero gravity. We simply hung there, my arms floating up to about chest height, as they would in a swimming pool, while Sam worked the console to make contact with the Moralist Sect headquarters back on Earth.

It took more than half an hour for Sam to get Rev. Dabney on his screen. A small army of neatly scrubbed, earnest, glittering-eyed young men appeared and tried to deal with Sam. Instead, Sam dealt with them.

"O.K., if you want the worms to die, it's your $70 million, not mine," said Sam to the young lawyer.

To his superior, Sam spoke sweetly, "Your boss signed the contract. All I'm doing is informing you of the problem, as specificed in clause 22.1, section C."

To his boss: "All right! I'll dump the whole load right here in the middle of nowhere and cut my losses. Is that what you want?"

To Rev. Dabney's astonished assistant administrator: "The lawsuit will tie you up for *years*, wiseass! You'll *never* finish your Eden! The creditors will take it over and make a Disney World out of it!"

To his superior, Sam spoke sweetly, "Your boss signed the contract. All I'm doing is informing you of the problem, as specified in clause 22.1, damned worms are dying! They're withering away! What we need is a miracle!"

That, finally, brought the Right Rev. Virtue T. Dabney to the screen.

I instantly disliked the man. His face was largely hidden behind a dark beard and mustache. I suppose he thought it made him look like an Old Testament patriarch. To me, he looked like a conquistador; all he needed was a shining steel breastplate and helmet. He seemed to me perfectly capable of burning my people at the stake.

"Mr. Gunn," he said, smiling amiably. "How may I help you?"

Sam said lightly, "I've got another ten tons of worms for you, as per contract, but they're dying. I don't think any of 'em are gonna survive long enough to make it to your habitat."

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It took more than a minute for the message to get back and forth from Earth to the *Klaus Heiss*. Dabney spent the time with hands folded and head bowed prayerfully. Sam hung onto the handgrips of the comm console to keep himself from bobbing around weightlessly. I stayed out of range of the video and fidgeted with seething, smoldering nervous fury.

"The worms are dying, you say? What seems to be the matter? Your first shipment made it to Eden with no trouble at all, I believe."

"Right. But something's gone wrong with this load. Maybe we got bad worms to start with. Maybe there's a fault in the cargo containers' radiation shielding. The worms are dying." Sam reached into his hip pocket and pulled out a blackened, twisted, dried-out string of what must have once been an earthworm. "They're all going like this."

I watched intently for all the long seconds it took the transmission to reach Dabney's screen. When it did, his eyes went wide and his mouth dropped open.

"All of them? But how can this be?"

Sam shrugged elaborately. "Beats the hell out of me. My biologist is stymied, too. Maybe it's a sign from God that he doesn't want you to leave the Earth. I dunno."

Dabney's bearded face, when *that* line of Sam's finally hit him, went into even greater shock.

"I cannot believe the Lord would smite his faithful so. This is the work of evil."

"So what do we do about it?" Sam asked cheerfully. "My contract guarantees full payment for delivery. I'm not responsible for the condition of the cargo after your people inspected my cargo bay and O.K.'ed the shipment."

Sam blanked out the screen and turned to me. "Have you made up your mind, kiddo?"

"Made up my mind?"

"About the ads in the ionosphere."

"What do his dying worms have to do with me? Or with painting an advertisement on the ionosphere?"

"You'll see!" he promised. "Will you do it?"

"No! Never!"

"Even if it means saving your asteroid?"

I was too angry even to consider it. I turned my back to Sam and gritted my teeth with fury.

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Sam sighed deeply, but when I whirled around to face him once more, he was grinning at me in that lopsided cunning way of his. Before I could say anything, he flicked on the screen again. Dabney's expression was crafty now. His eyes were narrowed, his lips pressed tight.

"What do you suggest as a solution to this problem, Mr. Gunn?"

"Damned if I know," said Sam. "Seems to me you need a miracle, Reverend."

He took special delight in Dabney's wince when that "damned" reached him.

"A miracle, you say," replied the Moralist leader. "And how do you think we might arrange a miracle?"

Sam chuckled. "Well — I don't know much about the way religions work, but I've heard that if somebody is willing to make a sacrifice, give up something that he really wants or even needs, then God rewards him. Something about casting bread upon the waters, I think."

I began to realize that there was nothing at all wrong with the Moralists' worms. Sam was merely holding them hostage. For me. He was risking lawsuits that could cost him everything he owned. For me.

Dabney's expression became even more squint-eyed than before. "You wouldn't be Jewish, by any chance, would you, Mr. Gunn?"

Sam's grin widened to show lots of teeth. "You wouldn't be anti-Semitic, would you, Reverend?"

Their negotiations went on for the better part of three hours, with those agonizing long pauses in between each and every statement they made. After an hour of jockeying back and forth, Dabney finally suggested that he — and his Sect — might give up their claim to an asteroid that they wanted to use for building material.

"That might be just the sacrifice that will save the worms," Sam allowed.

More offers and counteroffers, more tiptoeing and verbal sparring. It was all very polite. And vicious. Dabney knew that there was nothing wrong with the worms. He also knew that Sam could open his cargo bay to vacuum for the rest of the trip to Eden, and the Moralists would receive ten tons of very dead and desiccated garbage.

Finally: "If my people make this enormous sacrifice, if we give up our claim to this asteroid that we so desperately need, what will you be willing to do for me . . . er, us?"

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Sam rubbed his chin. "There's hundreds of asteroids in the Aten group, and more in the Apollos. They all cut across Earth's orbit. You can pick out a different one. It's no great sacrifice to give up this one little bitty piece of rock that you're claiming."

Dabney was looking down, as if at his desktop. Perhaps an aide was showing him lists of the asteroids available to help build his Eden.

"We picked that particular asteroid because its orbit brings it the closest to Eden, and therefore it is the easiest — and least expensive — for us to capture and use."

He held up a hand before Sam could reply, an indication of very fast reflexes on his part. "However, in the interests of charity and self-sacrifice, I am willing to give up that particular asteroid. I know that some Latin American woman has been carving figures on it. If I — that is, if *we* — allow her to remain and give up our claim to the rock, what will you do for the Moralist Sect in return?"

Now Sam's smile returned like a cat slinking in through a door open merely the barest crack. I realized that he had known all along that Dabney would not give in unless he got something more out of the deal than merely the delivery of the worms he had already paid for. He wanted icing on his cake.

"Well now," Sam said slowly, "how about an advertisement for the Moralist Sect that glows in the sky and can be seen from New England to the Mississippi Valley?"

No! I screamed silently. Sam couldn't help them to do that! It would be sacrilegious.

But when the transmission finally reached Dabney, his shrewd eyes grew even craftier. "What are you talking about, Mr. Gunn?"

Sam described the concept of painting the ionosphere with electron guns. Dabneys' eyes grew wider and greedier with each word.

Finally his bearded face broke into a benign smile. "Mr. Gunn, you were right. The Bible describes our situation perfectly, 'Cast thy bread upon the waters, and it shall be returned unto you a thousandfold.'"

"Does that mean we've got a deal?" Sam asked flatly.

I pushed over toward him and banged the blank key hard enough to send me recoiling toward the overhead. Sam looked up at me. There was no surprise on his face. He looked as if he had expected me to fight him.

"You can't do this!" I said. "You're playing into his hands! You can't. . . ."

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"You want to stay on the asteroid or not?"

I stopped in mid-sentence and stared at him. Sam's eyes were flat gray, boring into me.

"This is the way business is done, kid," he said. "You want the asteroid. They want the asteroid. I make a threat they know is phony, but they pretend to consider it — as long as they get something they don't have now. What it boils down to is, you can stay on the asteroid if Holier-Than-Thou gets to paint his advertisements across the ionosphere. That's the deal. Will you go for it or not?"

I couldn't speak. I was too furious, too confused, torn both ways and angry at Sam for putting me in this agony of indecision. I wanted to stay on the asteroid, yes, but not at the price of allowing the Moralists to deface the sky!

The message light on the screen began blinking. Sam touched the blank key again, and Dabney's face filled the screen once more, smiling an oily smile, the kind of unctuous happiness that a salesman shows when he's finally palmed off some shoddy goods at a shameful price.

"We have a deal, Mr. Gunn. We will rethink our options on acquiring that particular asteroid. Your, ah . . . friend" — he made a nasty smirk — "can stay and chip away at the rock to her heart's content. In return, you will help us to produce our ads in the ionosphere."

Sam glanced at me. I could negate the whole thing with merely a shake of my head. Instead, I nodded. And bit my lip so hard I tasted blood in my mouth.

Sam grinned at the display screen. "We've got a deal, Bishop."

"Reverend," corrected Dabney. Then he added, "And I presume our cargo of worms will arrive at Eden in a healthy condition?"

"That's up to you," said Sam, straight-faced. "And the power of prayer."

They chatted amiably for a few minutes more, a pair of con men congratulating each other. Each of them had what he wanted. I began to realize that Sam would make a considerable amount of money from producing the Moralists' ionospheric advertisements. My anger took a new turn. I could feel my face turning red, my cheeks burning with rage.

Sam finally ended his conversation with Rev. Dabney and turned off the comm console. It seemed to me that Dabney's bearded image remained on the screen even after it went dark and dead. It burned in my vision like the afterimage of an explosion.

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Sam turned to me with a wide grin splitting his face. "Congratulations! You can stay on the asteroid."

"Congratulations yourself," I said, my voice trembling, barely under control. "You have put yourself into the advertising business. You should make a great deal of profit out of defacing the sky. I hope that makes you happy."

I stormed out of the bridge and headed for the locker where I had left my space suit. Yes, I could stay on my asteroid and finish my work. But my love affair with Sam Gunn was shattered completely.

He let the fat engineer fly me back to my quarters. Sam knew I was furious and it would be best for him to leave me alone.

But not for long. After four or five sleepless hours, bobbing around my darkened quarters like a cork tossed on a stormy sea, I saw the message light on my comm console flick bright red. I reached out and turned it on.

Sam's face appeared on the screen, a half-guilty, boyish grin on his face. "Still mad at me?"

"No, not really." And I realized it was true even as I spoke the words. I was angry at Dabney and his smug Moralist power; angry at myself, mostly, for wanting to carve The Rememberer so much that I was willing to let them do whatever they wanted, so long as they left me alone.

"Good," said Sam. "Want me to bring some breakfast over to you?"

I shook my head. "I think not."

"Got to make a course change in another couple of hours," he said. "So I can take this can of worms to Eden."

"I know." He would be leaving me, and I could not blame him if he never returned. Still, it was impossible for me to allow him to come close to me. Not now. Not this soon after the deal he had struck. I knew he had done it for me, although I also knew he had his own reasons as well.

"Listen — I can get somebody else to design the pictures for the Moralists. You don't have to do it."

He was trying to be kind to me, I knew. But my anger did not abate. "Who draws the pictures doesn't matter, Sam. It's the fact that the advertisements will be spread across the sky. For *them*. That disgusts me."

"I'm doing this for you, kid."

"And for the profits," I snapped. "Tell the whole truth."

"Yep, there's a pot full of money in it," Sam admitted. "You wouldn't have to depend on your university grant anymore."

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"Never!" I spat.

He grinned at me. "That's my girl. I would've been disappointed if you agreed to it. But I had to ask, had to give you the first shot at the money."

Money. Art and money are always bound together, no matter what you do. The artist must eat. Must breathe. And that requires money.

But I stubbornly refused to give in to the temptation. I would *not* help Dabney to spread his advertising filth across the world's sky. Never.

Or so I thought.

THINGS HAPPENED so fast over the next few weeks that, to this day, I am not entirely certain how the chain of events began. Who did what to whom. I am certain of only one thing: Dabney had no intention of carrying out his part of the bargain he had struck with Sam, and he never did.

I was alone again, and missing Sam terribly. For three years I had lived in isolation without a tear or a regret. I had even relished the solitude, the freedom from the need to adjust my behavior to the expectations of others. Sam had burst into my life like a joyful, energetic skyrocket, showering pretty sparks everywhere. And now that he was gone, I missed him. I feared I would never see him again, and I knew if he forgot me, it would be my own fault.

Suddenly my sorrowing loneliness was shattered by the arrival of a team of two dozen propulsion engineers, with legal documents that stated they were empowered to move my asteroid to Eden, where it was to be broken up and used as structural material for the Moralists' habitat.

Without thinking twice, I put in a frantic call for Sam. It turned out he was halfway around the Earth's orbit. He had delivered his worms to Eden, and was now on his way back to the Moon to pick up electronics components for a new construction site at the L=4 libration point.

There were no relay stations around Earth's orbit in those days. My call had to fight past the Sun's coronal interference. Sam's image, when he came onto my comm screen, was shimmering and flecked with pinpoint bursts of light, like an old hologram.

As soon as he said hello, I unloaded my tale of woe in a single burst of unrelieved fury and fear. "They're taking possession of the asteroid!" I finished. "I told you they couldn't be trusted!"

For once in his life, Sam was silent and thoughtful. I watched his ex-

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pression change from mild curiosity to shocked surprise and then to a jaw-clenched anger as my words reached him.

At last he said, "Don't go off the deep end. Give me a few hours to look into this. I'll call you back."

It took almost forty-eight hours. I was frantic, my emotions swinging like a pendulum between the desire to hide myself or run away altogether, and the growing urge to take one of the high-powered lasers I used for rock carving and slice the propulsion team into bite-sized chunks of bloody dead meat.

I tried to reach Sam a thousand times during those maddening horrible hours of waiting. Always I got one of the crew members from his ship, or a staff person from his headquarters at the Earth View Hotel. Always they gave me the same message: "Sam's looking into the problem for you. He said he'll call you as soon as he gets everything straightened out."

When he finally did call me, I was exhausted and ready for a straitjacket.

"It doesn't look good," said his wavering, tight-lipped image. Without waiting for me to respond, Sam outlined the situation.

The Right Reverend Virtue T. Dabney (his *T* stood for Truthful, it turned out!) had screwed us both. The Moralists never withdrew their claim from the IAC's arbitration board, and the board had decided in their favor, as Dabney had expected. The Moralists had the right to take my asteroid and use it as construction material.

Worse still, Sam's cargo of worms had arrived at Eden in fine, slimy, wriggling earthwormy health. And even worse than that, Sam had signed the contract to produce the ionospheric advertisements for the Moralist Sect. The deal was set, as legal and legitimate as an act of the world congress.

"If I don't go through with the ads," Sam said, strangely morose, "the bastards can sue me for everything I've got. They'll wind up owning my hotel, my ships, even the clothes on my back."

"Isn't there *anything* we can do?" I pleaded to his image on my screen.

For long minutes he gave no response, as my words struggled across nearly 300 million kilometers to reach him. I hung weightless before the screen, suspended in the middle of my shabby little compartment, while outside I could *feel* the thumps and clangs of the propulsion team attaching their obscene rocket thrusters and nuclear engines to my asteroid. I

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felt like a woman surrounded by rapists, helpless and alone.

I stared so hard at Sam's image in my screen that my eyes began to water. And then I realized that I was crying.

At last, after a lifetime of agony, Sam's face broke into a sly grin. "Y'know, I saw a cartoon once, when I was a kid. It was in a girlie magazine."

I wanted to scream at him. What does this have to do with my problem? But he went on calmly, smiling crookedly at his reminiscence, knowing that any objections from me could not reach him for a quarter of an hour.

"It showed two guys chained to the wall of a dungeon, ten feet off the floor. Chained hand and foot. Beards on them down to their kneecaps. Totally hopeless situation. And one of the guys" — Sam actually laughed! — "one of the guys has this big, stupid grin on his face, and he's saying, 'Now here's my plan.'"

I felt my lungs filling themselves with air, getting ready to shriek at his nonsense.

"Now, before you blow your top," Sam warned, "let me tell you two things: First, we're both in this together. Second — well . . . here's my plan."

He kept on speaking for the next hour and a half. I never got the chance to object or even get a word in.

That is how I came to paint the first picture in Earth's ionosphere.

Sam had expected me all along to draw the advertisements for him. He never planned to use another artist. "Why should some stranger make all that money?" was his attitude.

While the propulsion engineers fitted out my asteroid with their nuclear rocket systems, and supply ships from the Moon towed huge spherical tanks of gaseous propellants, Sam relayed the Rev. Dabney's rough sketches of what the ionospheric advertisements should look like.

They were all photographs of Dabney himself, wrapped in pure white robes with heavenly clouds of gold behind him and just a hint of a halo adorning his saintly head.

I would have trashed them immediately if I had not been aware of Sam's plan.

The timing had to be perfect. The first ad was scheduled to be placed over the midwestern section of the United States, where it could be seen

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from roughly Ohio to Iowa. If everything went the way Mountain McGuire and T. Kagashima claimed it would, the picture would drift slowly westward as the day/night terminator crawled across the Earth's surface.

Sam himself came to visit me on the day that the first ad was to be produced. He was in the latest and largest of his cargo carriers, the *Laissez Faire*, which he jokingly referred to as "The Lazy Fairy."

My asteroid was already on its way to Eden. The propulsion engineers had connected the last of their propellant tanks, turned on their systems, and left me alone to glide slowly, under the low but steady thrust of the nuclear rockets, to a rendezvous with Eden. They would return in a few days to make final course corrections and take me off the asteroid forever.

Sam looked absolutely impish when he stepped into my compartment. His grin was almost diabolic. My place was an even bigger mess than usual, what with the sketches for the advertisements floating here and there and all my other sketches and computer wafers hanging weightlessly in midair.

"How can you ever find anything in here?" Sam asked, glancing around.

I had remained at my drawing board, behind it, actually. It formed something of a defensive shield for me. I did not want to fling myself into Sam's arms, no matter how much I really did want to do it. I couldn't let him think that I was willing to be his lover again in return for the help he was giving me. I couldn't let myself think that, especially because it was very close to being true.

He gave no indication of expecting such a reward. He merely eyed me mischievously and asked, "You really want to go through with this?"

I did not hesitate an instant. "Yes!"

He took a deep breath. "O.K. I'm game if you are. The lawyers have checked everything out. Let's do it."

I slid out from behind my drawing board and went to the computer. Sam came up beside me and activated my communications console. For the next half hour, we were all business, me checking my drawing and Sam connecting with McGuire and Kagashima.

"I'm glad they attached the rockets and that other junk to the end of the asteroid you haven't carved yet," Sam muttered as we worked. "Would've been a crime if they had messed up the work you've already done."

I nodded curtly, not trusting myself to look into his eyes. He was close

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enough to brush against my shoulder. I could feel the warmth of his body next to me, even while I sweated with cold apprehension.

Working together as a team linked across hundreds of millions of kilometers, Sam, McGuire, Kagashima, and I painted the first picture high in the ionosphere of Earth. From my computer the design went forth to a set of electron guns on board the same orbiting station that housed Sam's hotel. In the comm screen, I saw the picture forming across the midsection of North America.

The Virgin of the Andes.

I had no intention of spreading the pompous Dabney's unctuous features across the sky. Not even the *Norte Americanos* deserved that. Instead I had drawn a picture from my heart, from my childhood memories of the crude paintings that adorned the whitewashed walls of my village church.

You must understand that it was years before I myself saw my creation in the way it was meant to be seen, from the ground. All I had to go on that day was the little screen of my comm system, and even there I was seeing the Virgin backward, like looking at a stained-glass window from outside the cathedral.

Everyone was caught by surprise. A few startled gringos tried to photograph the picture that suddenly appeared over their heads at sunset, but none of the photos showed the true size or scope or even the actual colors of my Virgin. The colors especially were impossible to capture, they were so pale and shimmering and subtly shifting each moment. By the time television stations realized what was happening and dispatched their mobile news units, the Virgin had disappeared into the darkness of night.

All of North America went into startled, shocked turmoil. Then the word spread all across the world.

Ionosphere paintings last only for those precious few minutes of twilight, of course. Once the Sun dips below the horizon, the delicate electrical effects that create the subtle colors quickly disappear, and the picture fades into nothingness.

Except that the *information* that created the picture is stored in a computer, *gracias a Dios*. Many years later, when it was safe for me to return to Earth, I allowed the university to paint my Virgin over the skies of my native land. I saw it at last the way it was meant to be seen. It was beautiful, more beautiful than anything I have ever done since.

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But that was not to happen for many years. As Sam and I watched my Virgin fade into darkness, he turned to me with a happy grin.

"Now," he said cheerfully, "the shit hits the fan."

And indeed it did. Virtually every lawyer in the solar system became involved in the suits, countersuits, and counter-countersuits. Dabney and his Moralists claimed that Sam violated their contract. Sam claimed that the contract specifically gave him artistic license; and indeed those words were buried in one of the sub-subclauses on the next-to-last page of that thick legal document. The advertising industry was thunderstruck. Environmentalists from pole to pole screamed and went to court, which prompted art critics and the entire apparatus of "fine art" — the museums, magazines, charitable associations, social clubs, wealthy patrons, and even government agencies — to come to the defense of a lonely young artist that none of them had ever heard of before: Elverda Apacheta. Me!

Sam and I paid scant attention to the legal squabbles. We were sailing on my asteroid past the Moralists' half-finished Eden and out far beyond Earth's orbit. Sam's "Lazy Fairy," was crammed to its sizable capacity with propellants for the nuclear rockets attached to The Rememberer. He jiggered the propulsion engineers' computer program so that my asteroid headed for deep space, out past even the orbit of Mars, out to the belt where its brother and sister asteroids orbited by the millions.

When the Moralists' engineers tried to come out and intercept "their" runaway, Sam gleefully informed them:

"This object is a derelict, under the definition stated in the IAC's regulations of space commerce. It is heading for deep space, and any attempt to intercept it or change its course will be regarded by the IAC and the world government as an act of piracy!"

By the time the Moralists' lawyers came to the conclusion that Sam was bluffing, we were moving fast enough and far enough so that Dabney decided it would not be worthwhile trying to recover my asteroid. The Rememberer sailed out to the asteroid belt, half a dozen propulsion engineers were fired by the Moralists (and immediately hired by S. Gunn Enterprises, Inc.), and Sam and I spent more than a year together.

"And that is how I became famous." Elverda Apacheta smiled slightly, as if someone had paid her a compliment she did not deserve. "Even though I am a sculptress, I am known to the public for that one paint-

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ing. Like Michelangelo and the Sistine ceiling."

The reporter asked, "And Sam? You say he spent more than a year with you on your asteroid?"

Now the sculptress laughed, a rich, throaty sound. "Yes, I know it sounds strange to imagine Sam staying in one place for two days on end, let alone 380. But he did. He stayed with me that long."

"That's . . . unusual."

"You must realize that half the solar system's lawyers were looking for Sam. It was a good time for him to be unavailable. Besides, he wanted to see the asteroid belt for himself. You may recall that he made and lost several fortunes out there."

"And that's where he died," said the reporter.

Elverda Apacheta nodded slowly, remembering. "It was a stormy time, cooped up in my little workshop. We both had other demons driving us: Sam wanted to be the first entrepreneur to set up operations in the asteroid belt. . . ."

"And he was," the reporter murmured.

"Yes, he was. And I had my own work. My art."

"Which is admired and adored everywhere."

"Perhaps so," admitted the sculptress, "but still I receive requests to produce the Virgin of the Andes. No matter what I do, that painting will haunt me forever."

"The Rememberer is the most popular work of art off-Earth. Every year thousands make the pilgrimage. Your people will never be forgotten."

"Perhaps more tourists would go to see it if it were in a lower orbit," the sculptress mused. "Sam worked it out so that it swung through the asteroid belt, returned to Earth's vicinity, and was captured into a high orbit, about twelve thousand kilometers up. He was afraid of bringing it closer; he said his calculations were not so exact, and he feared bringing it so close that it would hit the Earth."

"Still, it's regarded as a holy shrine and one of the greatest works of art anywhere," the reporter said.

"But it's rather difficult for people to get to." Elverda Apacheta's smooth brow knitted slightly in an anxious little frown. "I have asked the IAC to bring it closer, down to where the tourist hotels orbit, but they have not acted on my request as yet."

"You know how slow bureaucracies are," said the reporter.

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The sculptress sighed. "I only hope I live long enough for them to make their decision."

"Did the Moralists try to recapture your asteroid?"

"Oh no. That was the beauty of Sam's scheme. By pushing The Rememberer into such a high-velocity orbit, he made it too expensive for the Moralists to go chasing after us. They screamed and sued, but finally they settled on another one of the Aten group. More than one, I believe."

"And Sam left you while you were still coasting out in the asteroid belt?"

With a sad smile: "Yes. We quarreled a lot, of course. It was not entirely a honeymoon trip. Finally he detached his ship to investigate some of the smaller asteroids that we had discovered. He said he wanted to register a priority in their discovery. 'It's the only way I'll ever get my name in the history books,' he told me. That was the last I saw of him."

"No further contact at all?"

"Oh, we called each other. We spent hours talking. But he never came back to me." Elverda Apacheta looked away from the reporter, toward the view of Earth in the lounge's lone window. "In a way I was almost glad of it. Sam was very intense, and so was I. We were not meant to stay together for very long."

The reporter said nothing. For long moments the only sound in the lounge was the faint whisper of air coming through the ventilating ducts.

"The last time I spoke with him," Elverda Apacheta said, "he had a premonition of death."

The reporter felt her entire body tense. "Really?"

"Oh, it was nothing dark and brooding. That was not Sam's nature. He merely asked me someday to do a statue of him exactly as I remembered him, without using a photograph or anything else for a model. Strictly from memory. He said he would like to have that as his monument once he was gone."

"His statue on the Moon!"

The sculptress nodded. "Yes. I did it in Lunar glass. Have you seen it?"

"It's beautiful!"

Elverda Apacheta laughed. "It does not look like Sam at all. He was not a tall, dauntless explorer with a jutting jaw and steely eyes. But it's the way he wanted to be, and in a strange sort of way, inside that funny little body of his, that is the way he really was. So that is the way I made his statue."

And she laughed. But the tears in her eyes were not from joy.

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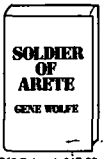

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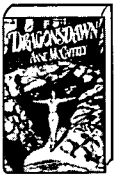

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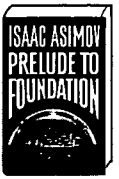

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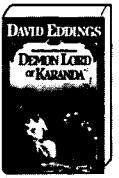

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